

LLNL Livermore Site Third Quarter 2010 Self-Monitoring Report

The following is the third quarter 2010 self-monitoring data for the treatment facilities and Lake Haussmann at the Lawrence Livermore National Laboratory (LLNL) Livermore Site.

The volumes of ground water and soil vapor treated, and volatile organic compound (VOC) mass removed during the third quarter of 2010 are presented in Tables 1 and 2, respectively. An historical summary of VOC volume and mass removed are presented in Tables 3 and 4, respectively.

Attachment A presents results of ground water treatment facility and extraction well (ground water and soil vapor) VOC, chromium, bioassay, turbidity and chloride analyses (Tables A-1 through A-5). During the third quarter of 2010, all effluent sample analytical results were within acceptable discharge limits.

Self-monitoring reports for all treatment facilities are presented in Attachment B. Monthly volumes of ground water extracted are shown in Attachment B; however, instantaneous flow rates are not shown for wells that are now only used for sampling and are not continuously pumped. The monthly volume shown for these wells is the quantity of water evacuated for sampling purposes. Monitoring data for Lake Haussmann are presented in Attachment C.

A map showing Livermore Site treatment areas and treatment facility locations, and ground water elevation contour maps showing hydraulic capture zones for hydrostratigraphic units (HSUs) 1B, 2, 3A, 3B, 4, and 5, are presented in Attachment D. The contour maps for the individual HSUs are based on data collected during July 2010.

This work performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under Contract DE-AC52-07NA27344.

Table 2. VOC mass removed at the Livermore Site, July through September 2010.

Treatment Area^a	VOC mass removed from ground water (kg)	VOC mass removed from soil vapor (kg)	Total VOC mass removed (kg) ^b
TFA	1.1	-	1.1
TFB	0.6	-	0.6
TFC	1.4	-	1.4
TFD	8.9	0.7	9.6
TFE	2.0	0.2	2.2
TFG	0.2	-	0.2
TFH	0.6	16.9	17.5
TOTAL^b	14.8	17.8	32.6

Table 3. Historical summary of volumes of water and soil vapor removed at the Livermore Site through September 2010.

Treatment Area^a	Volume of ground water extracted (Mgal)	Volume of vapor extracted (Kft³)
TFA	1,713	-
TFB	407	-
TFC	427	-
TFD	910	74,931
TFE	338	146,171
TFG	70	-
TFH	148	200,893
TOTAL^b	4,013	421,995

Table 4. Historical summary of VOC mass removed from water and soil vapor at the Livermore Site through September 2010.

Treatment Area^a	VOC mass removed from ground water (kg)	VOC mass removed from soil vapor (kg)	Total VOC mass removed (kg) ^b
TFA	201	-	201
TFB	76	-	76
TFC	97	-	97
TFD	801	89	890
TFE	206	145	351
TFG	10	-	10
TFH	34	1,195	1,229
TOTAL^b	1,425	1,429	2,854

^a Refer to Table 1 footnote for facilities in each treatment facility area.^b Rounded number.

Abbreviations for Tables 2, 3 and 4:

Kft³ = thousands of cubic feet.

Kg = Kilograms.

Mgal = millions of gallons.

VOC = Volatile organic compound.

Table 1. Volumes of ground water and soil vapor extracted and treated at the Livermore Site, July through September 2010.

Treatment Area^a	Month	Volume of ground water extracted (Kgal)^b	Volume of vapor extracted (Kft³)^b
TFA	July	8,148	-
	August	8,816	-
	September	7,856	-
TFB	July	2,422	-
	August	2,441	-
	September	2,470	-
TFC	July	3,867	-
	August	4,091	-
	September	3,678	-
TFD	July	6,436	1,884
	August	6,962	1,918
	September	6,954	1,843
TFE	July	2,277	926
	August	2,214	554
	September	2,242	487
TFG	July	710	-
	August	727	-
	September	525	-
TFH	July	915	2,481
	August	897	2,465
	September	873	2,560
TOTAL^c		75,521	15,118

^a Totals include ground water and soil vapor extracted from the following facilities:

TFA area: TFA, TFA-E, TFA-W

TFB area: TFB

TFC area: TFC, TFC-E, TFC-SE

TFD area: TFD, TFD-E, TFD-HPD, TFD-S, TFD-SE, TFD-SS, TFD-W, VTFD-ETCS, VTFD-HPD, VTFD-HS

TFE area: TFE-E, TFE-HS, TFE-NW, TFE-SE, TFE-SW, TFE-W, VTFE-ELM, VTFE-HS

TFG area: TFG-1, TFG-N

TFH area: TF406, TF406-NW, TF518-N, TF518-PZ, TF5475-1, TF5475-2, TF5475-3, VTF406-HS, VTF511, VTF518-PZ, VTF5475

TFF started operation in February 1993 for fuel hydrocarbon remediation. In August 1995, the regulatory agencies agreed that the vadose zone remediation was complete, and in October 1996 a No Further Action status was granted for the ground water.

^b Totals are derived from individual extraction wells shown in Attachment B

^c Rounded number

Kft³ = thousands of cubic feet

Kgal = thousands of gallons

Attachment A

**VOC, Chromium, Bioassay,
Turbidity, and Chloride Analyses**

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCl ₄ <-	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFA													
TFA-I001	06-JUL-10	E601	<0.5	1.1	0.66	<0.5	1.5	<1	<0.5	7.6	<0.5	0.77	<0.5
TFA-I001	03-AUG-10	E601	<0.5	1	0.68	<0.5	1.5	<1	<0.5	7	<0.5	0.73	<0.5
TFA-I001	07-SEP-10	E601	<0.5	0.97	0.63	<0.5	1.3	<1	<0.5	6.8	<0.5	0.69	<0.5
TFA-E001	06-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFA-E001	03-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFA-E001	07-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFA-E													
W-254	08-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	0.75	<1	<0.5	41	<0.5	1	<0.5
STU06-I	04-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	0.73	<1	<0.5	39	<0.5	1	<0.5
STU06-I	16-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	0.67	<1	<0.5	46	<0.5	1	<0.5
STU06-E	08-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
STU06-E	04-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
STU06-E	16-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFA-W^a													
W-404	15-JUL-10	E601	<0.5	<0.5	1.4	<0.5	2.7	<1	<0.5	9.9	<0.5	<0.5	<0.5
W-404	17-AUG-10	E601	<0.5	<0.5	1.5	<0.5	2.4	<1	<0.5	9.9	<0.5	<0.5	<0.5
W-404	16-SEP-10	E601	<0.5	<0.5	1.4	<0.5	2.3	<1	<0.5	10	<0.5	<0.5	<0.5
TFA-W-E	15-JUL-10	E624	<1	<1	1.5	<1	2.8	<1	<1	10	<1	<0.5	<1
TFB													
TFB-I002	06-JUL-10	E601	0.54	2.2	<0.5	<0.5	1.8	<1	4	1.4	<0.5	12	<0.5
TFB-I002	03-AUG-10	E601	<0.5	2	<0.5	<0.5	1.8	<1	3.6	1.4	<0.5	11	<0.5
TFB-I002	07-SEP-10	E601	0.5	1.9	<0.5	<0.5	1.5	<1	3.3	1.2	<0.5	10	<0.5
TFB-E002	06-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFB-E002	03-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFB-E002	07-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC													
TFC-I003	07-JUL-10	E601	<0.5	0.96	<0.5	<0.5	0.78	<1	11	2.4	<0.5	7.7	<0.5
TFC-I003	03-AUG-10	E601	<0.5	1.1	<0.5	<0.5	0.81	<1	9.9	2.4	<0.5	7.6	<0.5
TFC-I003	07-SEP-10	E601	<0.5	0.9	<0.5	<0.5	0.68	<1	9.5	2.2	<0.5	7.1	<0.5
TFC-E003	07-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCl ₄ <-	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFC (cont.)													
TFC-E003	03-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC-E003	07-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC-E													
MTU1-I	13-JUL-10	E601	<0.5	15	<0.5	<0.5	1.1	<1	11	0.65	<0.5	8.9	4.1
MTU1-I	04-AUG-10	E601	<0.5	16	<0.5	<0.5	1.1	<1	13	0.79	<0.5	10	5
MTU1-I	07-SEP-10	E601	<0.5	11	<0.5	<0.5	0.76	<1	14	0.8	<0.5	7.9	4
MTU1-E	13-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU1-E	04-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU1-E	07-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC-SE													
PTU1-I	08-JUL-10	E601	<0.5	6.4	<0.5	<0.5	2.9	<1	17	0.6	<0.5	17	0.97
PTU1-I	04-AUG-10	E601	<0.5	7.1	<0.5	<0.5	3.1	<1	17	0.62	<0.5	17	0.94
PTU1-I	08-SEP-10	E601	<0.5	6.3	<0.5	<0.5	2.3	<1	15	0.59	<0.5	16	0.98
PTU1-E	08-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU1-E	04-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU1-E	08-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD													
TFD-I004	07-JUL-10	E601	2.9	1.9	<0.5	<0.5	0.73	<1	0.69	0.99	<0.5	55	42
TFD-I004	04-AUG-10	E601	2.8	2	<0.5	<0.5	0.79	<1	0.7	1	<0.5	55	38
TFD-I004	08-SEP-10	E601	2.2	1.5	<0.5	<0.5	1.6	<1	<0.5	1.9	<0.5	53	24
TFD-E004	07-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-E004	04-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-E004	08-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-E													
PTU8-I	08-JUL-10	E601	4.4	1.5	<0.5	0.62	7.8	<1	0.62	7.9	<0.5	89	<0.5
PTU8-I	04-AUG-10	E601	4.4	1.5	<0.5	0.54	5.4	<1	0.54	6.9	<0.5	87	<0.5
PTU8-I	08-SEP-10	E601	4.4	1.3	<0.5	0.5	5.2	<1	0.5	6.7	<0.5	79	<0.5
PTU8-E	08-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU8-E	04-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU8-E	08-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCl ₄ <-	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFD-HPD													
PTU10-I	15-JUL-10	E601	2.5	0.62	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	54	<0.5
PTU10-I	05-AUG-10	E601	2.4	0.58	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	55	<0.5
PTU10-I	09-SEP-10	E601	2.6	0.58	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	55	<0.5
PTU10-E	15-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU10-E	05-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU10-E	09-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-S													
PTU2-I	14-JUL-10	E601	1.2	1.8	<0.5	<0.5	5.6	<1	1.3	6.7	<0.5	66	<0.5
PTU2-I	18-AUG-10	E601	1.3	1.9	<0.5	<0.5	4.8	<1	1.2	6.6	<0.5	70	<0.5
PTU2-I	15-SEP-10	E601	1.3	1.8	<0.5	<0.5	4.6	<1	1.1	6.4	<0.5	69	<0.5
PTU2-E	14-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU2-E	18-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU2-E	15-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-SE													
PTU11-I	13-JUL-10	E601	0.98	8.5	1.1	2.4	15	<1	4.3	44	<0.5	140	<0.5
PTU11-I	04-AUG-10	E601	1	8.7	1.2	2.5	14	<1	4.1	44	<0.5	140	<0.5
PTU11-I	02-SEP-10	E601	1.3	9.6	1	2.9	16	<1	4.2	52	<0.5	180	<0.5
PTU11-E	13-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU11-E	04-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU11-E	02-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-SS													
PTU12-I	14-JUL-10	E601	3	2.7	1	3.1	19	1	0.93	27	<0.5	170	6.2
PTU12-I	17-AUG-10	E601	2.8	2.6	0.93	3.1	15	<1	0.79	25	<0.5	170	5.9
PTU12-I	13-SEP-10	E601	2.4	2.6	1.2	4.2	19	1.2	0.65	32	<0.5	200	5.7
PTU12-E	14-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU12-E	17-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU12-E	13-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-W													
PTU6-I	15-JUL-10	E601	0.51	4	<0.5	<0.5	<0.5	<1	0.56	<0.5	<0.5	5.9	66
PTU6-I	19-AUG-10	E601	0.5	3.8	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	5.7	65
PTU6-I	15-SEP-10	E601	0.51	3.8	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	6.1	66

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCl ₄ -<	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFD-W (cont.)													
PTU6-E	15-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU6-E	19-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU6-E	15-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-E													
PTU3-I	19-JUL-10	E601	<0.5	3.5	<0.5	<0.5	38	<1	12	55	<0.5	150	<0.5
PTU3-I	23-AUG-10	E601	<0.5	5.8	<0.5	<0.5	13	<1	5.2	25	<0.5	87	<0.5
PTU3-I	22-SEP-10	E601	<0.5	3.6	<0.5	<0.5	20	<1	7.6	30	<0.5	83	<0.5
PTU3-E	19-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU3-E	23-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU3-E	22-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-HS													
GTU07-I	13-JUL-10	E601	1.8	1.7	<0.5	<0.5	9.2	2.6	7.6	15	<0.5	260	<0.5
GTU07-I	17-AUG-10	E601	2.2	1.9	<0.5	<0.5	7.6	2.2	4.7	10	<0.5	260	<0.5
GTU07-I	08-SEP-10	E601	2	1.9	<0.5	<0.5	6.6	2.1	4.8	10	<0.5	270	<0.5
GTU07-E	13-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU07-E	17-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU07-E	08-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-NW													
PTU9-I	19-JUL-10	E601	<0.5	2.6	<0.5	<0.5	<0.5	<1	1	<0.5	<0.5	13	<0.5
PTU9-I	18-AUG-10	E601	<0.5	2.6	<0.5	<0.5	<0.5	<1	1	<0.5	<0.5	12	<0.5
PTU9-I	13-SEP-10	E601	<0.5	1.7	<0.5	<0.5	<0.5	<1	0.99	<0.5	<0.5	11	<0.5
PTU9-E	19-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU9-E	18-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU9-E	13-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-SE													
MTU04-I	13-JUL-10	E601	4.5	1	<0.5	<0.5	26	<1	7.9	9.2	<0.5	220	1.3
MTU04-I	04-AUG-10	E601	4.5	1.2	<0.5	<0.5	27	<1	7.7	9.4	<0.5	220	1.4
MTU04-I	02-SEP-10	E601	3.9	0.89	<0.5	<0.5	22	<1	7.4	8.1	<0.5	200	1.2
MTU04-E	13-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU04-E	04-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU04-E	02-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCl ₄ <-	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFE-SW													
MTU03-I	13-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	1.8	2.1	1.3	0.8	<0.5	11	<0.5
MTU03-I	05-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	1.6	1.9	1.2	0.75	<0.5	11	<0.5
MTU03-I	09-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	1.4	1.5	1	0.76	<0.5	10	<0.5
TFE-W													
MTU05-I	13-JUL-10	E601	<0.5	1	<0.5	<0.5	2.7	1.4	11	5.7	<0.5	29	<0.5
MTU05-I	05-AUG-10	E601	<0.5	1.1	<0.5	<0.5	2.7	1.5	12	6	<0.5	32	<0.5
MTU05-I	09-SEP-10	E601	<0.5	1	<0.5	<0.5	2.4	1.3	11	5.8	<0.5	31	<0.5
MTU05-E	13-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU05-E	05-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU05-E	09-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFG-1													
W-1111	15-JUL-10	E601	3	10	<0.5	<0.5	1	<1	0.51	1.2	<0.5	4.2	<0.5
GTU01-I	19-AUG-10	E601	3	9	<0.5	<0.5	0.97	<1	<0.5	1.1	<0.5	3.7	<0.5
GTU01-I	16-SEP-10	E601	2.8	8.7	<0.5	<0.5	1.2	<1	0.51	1.2	<0.5	3.8	<0.5
GTU01-E	15-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU01-E	19-AUG-10	E601	<0.5	0.63	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU01-E	16-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFG-N													
MTU02-I	15-JUL-10	E601	<0.5	3.2	<0.5	<0.5	1.4	<1	1.4	15	<0.5	4.9	<0.5
MTU02-I	19-AUG-10	E601	<0.5	2.7	<0.5	<0.5	1.1	<1	1.1	15	<0.5	4.9	<0.5
MTU02-I	08-SEP-10	E601	<0.5	2.7	<0.5	<0.5	1.1	<1	1.1	15	<0.5	4.6	<0.5
MTU02-E	15-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU02-E	19-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU02-E	08-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TF406													
PTU5-I	13-JUL-10	E601	<0.5	0.67	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	4.9	<0.5
PTU5-I	18-AUG-10	E601	<0.5	0.92	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	6.1	<0.5
PTU5-I	13-SEP-10	E601	<0.5	0.8	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	5.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCl ₄ <-	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TF406 (cont.)													
PTU5-E	13-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU5-E	18-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU5-E	13-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TF406-NW													
W-1801	13-JUL-10	E601	<0.5	1.6	<0.5	<0.5	<0.5	<1	7.4	0.81	<0.5	28	<0.5
GTU03-I	18-AUG-10	E601	<0.5	1.7	<0.5	<0.5	<0.5	<1	7.1	0.82	<0.5	30	<0.5
GTU03-I	13-SEP-10	E601	<0.5	1.5	<0.5	<0.5	<0.5	<1	6.5	0.8	<0.5	27	<0.5
GTU03-E	13-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU03-E	18-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU03-E	13-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TF518-N^b													
W-1410	08-SEP-10	E624	3.1	2.3	<1	<1	<1	<1	<1	<1	<1	24	<1
TF5475-1^c													
---	---	---	--	--	--	--	--	--	--	--	--	--	--
TF5475-2													
GTU09-I	13-JUL-10	E601	2	23	0.74	2.9	21	<1	7.4	36	<0.5	310	<0.5
GTU09-I	04-AUG-10	E601	1.8	20	0.65	2.3	18	<1	8.5	34	<0.5	270	<0.5
GTU09-I	16-SEP-10	E601	2.1	23	0.62	3.2	19	<1	6.7	39	<0.5	330	<0.5
GTU09-E	13-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU09-E	04-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU09-E	16-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TF5475-3^d													
---	---	---	--	--	--	--	--	--	--	--	--	--	--

Notes on following page.

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

^a TFA-W effluent is discharged to the Livermore Water Reclamation Plant in accordance with Permit #151OG (2006-2008). The discharge limit for Total Toxic Organics is 1.0 mg/L.

^b TF518-N did not operate during this reporting period due to mixed waste disposition issues.

^c TF5475-1 did not operate during this reporting period due to mixed waste disposition issues.

^d TF5475-3 did not operate during this reporting period due to mixed waste disposition issues.

Notes:

CCl₄ = Carbon tetrachloride

CHCl₃ = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl ₄ <-	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFA													
W-109	15-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	0.56	<1	<0.5	2.1	<0.5	<0.5	<0.5
W-262 ^a	29-JAN-08	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	0.56	<0.5	<0.5	<0.5
W-408	15-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	0.62	<0.5	<0.5	<0.5
W-415	15-JUL-10	E601	<0.5	1.2	0.91	<0.5	1.9	<1	<0.5	13	<0.5	1.2	<0.5
W-457	15-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	0.57	<1	<0.5	4.8	<0.5	<0.5	<0.5
W-518 ^a	24-APR-08	E601	<0.5	<0.5	7.3	<0.5	4	<1	<0.5	6.3	<0.5	0.67	<0.5
W-522 ^a	24-APR-08	E601	<0.5	<0.5	2.3	<0.5	1.5	<1	<0.5	3.5	<0.5	<0.5	<0.5
W-605	15-JUL-10	E601	<0.5	<0.5	1.5	<0.5	1.8	<1	<0.5	18	<0.5	0.98	<0.5
W-614 ^a	11-JAN-10	E601	<0.5	0.69	<0.5	<0.5	<0.5	<1	<0.5	8.1	<0.5	<0.5	<0.5
W-712	15-JUL-10	E601	3.6	3.2	1.4	<0.5	4.4	<1	<0.5	1.8	<0.5	3.7	<0.5
W-714	15-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	11	<0.5	<0.5	<0.5
W-903 ^a	26-MAY-10	E601	<0.5	<0.5	0.65	<0.5	0.6	<1	<0.5	4.5	<0.5	<0.5	<0.5
W-904	15-JUL-10	E601	<0.5	<0.5	1.2	<0.5	1.4	<1	<0.5	8.1	<0.5	<0.5	<0.5
W-1001	15-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
W-1004	15-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	3.6	<0.5	<0.5	<0.5
W-1009	15-JUL-10	E601	1.3	5.6	0.94	<0.5	3.9	<1	0.59	14	<0.5	2.2	<0.5
TFA-E													
W-254	08-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	0.75	<1	<0.5	41	<0.5	1	<0.5
TFA-W													
W-404	16-SEP-10	E601	<0.5	<0.5	1.4	<0.5	2.3	<1	<0.5	10	<0.5	<0.5	<0.5
TFB													
W-357	14-JUL-10	E601	1.6	2.6	<0.5	<0.5	1.9	<1	5.5	1.2	<0.5	33	<0.5
W-610	14-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	2.3	<1	2.6	1.1	<0.5	2.7	<0.5
W-620	14-JUL-10	E601	<0.5	1.5	<0.5	<0.5	1.8	<1	2.4	1.3	<0.5	4.8	<0.5
W-621	14-JUL-10	E601	<0.5	0.82	<0.5	<0.5	0.72	<1	1.4	0.51	<0.5	3.9	<0.5
W-655	14-JUL-10	E601	<0.5	0.94	<0.5	<0.5	<0.5	<1	3.8	<0.5	<0.5	2.6	<0.5
W-704	14-JUL-10	E601	0.6	3.5	<0.5	<0.5	2.4	<1	5.9	3.2	<0.5	23	<0.5
W-1423	14-JUL-10	E601	0.85	5	<0.5	<0.5	4	<1	3.9	1.8	<0.5	9.3	<0.5
TFC													
W-701	14-JUL-10	E601	<0.5	2	<0.5	<0.5	1.9	<1	30	0.91	<0.5	12	<0.5
W-1015	14-JUL-10	E601	<0.5	0.57	<0.5	<0.5	1.1	<1	2.2	1.1	<0.5	5	<0.5
W-1102	14-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	4.3	<0.5	<0.5	1.9	<0.5
W-1103	14-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	1.4	<0.5
W-1104	14-JUL-10	E601	<0.5	0.52	<0.5	<0.5	<0.5	<1	2	3.6	<0.5	6.2	<0.5
W-1116	14-JUL-10	E601	<0.5	1.4	<0.5	<0.5	0.63	<1	8.1	2.4	<0.5	4	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl ₄ <-	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFC-E													
W-368	13-JUL-10	E601	<0.5	11	<0.5	<0.5	0.85	<1	18	2.1	<0.5	14	5.3
W-413	13-JUL-10	E601	<0.5	17	<0.5	<0.5	1.4	<1	11	<0.5	<0.5	7.8	4.8
TFC-SE													
W-1213	13-JUL-10	E601	<0.5	4.9	<0.5	<0.5	3.5	<1	10	<0.5	<0.5	16	<0.5
W-2201	13-JUL-10	E601	<0.5	7.9	<0.5	<0.5	2.8	<1	21	0.8	<0.5	17	1.4
TFD													
W-351	13-JUL-10	E601	8.9	1.7	<0.5	1.3	7.5	<1	1.8	7.2	<0.5	150	5
W-653 ^a	05-JAN-10	E601	27	9.2	<0.5	<0.5	0.98	1	2	0.83	<0.5	1100	<0.5
W-906	13-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	3.4	<0.5
W-907-2 ^a	08-APR-09	E601	<0.5	7.2	<0.5	0.6	4.2	<1	1.6	7.8	<0.5	92	<0.5
W-1206	10-AUG-10	E601	0.86	1.6	<0.5	<0.5	1.3	<1	<0.5	1.3	<0.5	28	3.2
W-1208	13-JUL-10	E601	3	2.3	<0.5	<0.5	0.57	<1	0.73	0.75	<0.5	55	50
W-2011 ^a	27-AUG-09	E601	<0.5	0.56	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	4.8	<0.5
W-2101	13-JUL-10	E601	15	4.2	<0.5	<0.5	0.73	<1	2.5	0.62	<0.5	350	<0.5
W-2102 ^a	28-AUG-09	E601	9.1	7.5	<0.5	<0.5	0.51	2.3	2.6	0.54	<0.5	660	<0.5
TFD-E													
W-1253 ^{ab}	11-FEB-08	E601	6	6.2	<5	<5	16	<10	17	12	<5	2300	<5
W-1255 ^a	11-FEB-08	E601	4.4	2	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	260	<0.5
W-1301	13-JUL-10	E601	2.5	1.6	1.6	4.4	45	<1	<0.5	42	<0.5	190	<0.5
W-1303 ^a	14-OCT-08	E601	3	2.9	0.8	3.1	7.2	<1	<0.5	6.7	<0.5	150	23
W-1306	13-JUL-10	E601	4.2	2.8	<0.5	<0.5	0.94	<1	<0.5	3.8	<0.5	92	<0.5
W-1307	13-JUL-10	E601	2.1	<0.5	<0.5	<0.5	0.6	<1	<0.5	0.72	<0.5	21	<0.5
W-1404 ^a	02-APR-10	E601	<0.5	18	<0.5	3.6	2.6	<1	<0.5	44	<0.5	49	<0.5
W-1550	13-JUL-10	E601	7.5	3.7	<0.5	<0.5	1.2	<1	0.65	5.5	<0.5	150	<0.5
W-2006	13-JUL-10	E601	1.3	2.6	4.4	11	140	2	<0.5	88	<0.5	710	<0.5
W-2203	13-JUL-10	E601	16	2.5	<0.5	<0.5	4	<1	3.9	7.8	<0.5	120	<0.5
TFD-HPD													
W-1254	15-JUL-10	E601	2.5	0.6	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	53	<0.5
W-1551 ^a	24-AUG-09	E601	4	2.1	<0.5	<0.5	<0.5	<1	1.6	<0.5	<0.5	170	<0.5
W-1552 ^a	24-AUG-09	E601	<0.5	1.1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	26	<0.5
W-1650 ^a	20-AUG-09	E601	6.1	1.6	<0.5	<0.5	<0.5	<1	2.2	<0.5	<0.5	260	<0.5
W-1651 ^a	24-AUG-09	E601	1.5	1	<0.5	<0.5	<0.5	<1	0.85	<0.5	<0.5	74	<0.5
W-1652 ^a	20-AUG-09	E601	1.2	1.1	<0.5	<0.5	<0.5	2.4	<0.5	0.63	<0.5	150	<0.5
W-1653 ^a	20-AUG-09	E601	0.58	0.67	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	49	<0.5
W-1654 ^a	24-AUG-09	E601	<0.5	0.68	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	25	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl ₄ <-	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFD-HPD (cont.)													
W-1655 ^a	24-AUG-09	E601	0.62	1.1	<0.5	<0.5	<0.5	<1	<0.5	0.91	<0.5	63	<0.5
W-1656 ^a	20-AUG-09	E601	2.1	3	<0.5	<0.5	<0.5	<1	0.55	<0.5	<0.5	97	<0.5
W-1657 ^a	24-AUG-09	E601	8.9	4	<0.5	<0.5	<0.5	<1	4	<0.5	<0.5	730	<0.5
TFD-S													
W-1503	14-JUL-10	E601	2.4	2.4	<0.5	0.51	4.5	<1	0.99	4.2	<0.5	75	<0.5
W-1504	14-JUL-10	E601	<0.5	1.3	<0.5	<0.5	13	1.1	2.8	16	<0.5	79	<0.5
W-1510	14-JUL-10	E601	<0.5	1.2	<0.5	<0.5	2.2	<1	<0.5	2.9	<0.5	23	0.6
TFD-SE													
W-314	13-JUL-10	E601	1.2	11	0.94	1.8	13	<1	5.8	20	<0.5	160	<0.5
W-1308	13-JUL-10	E601	<0.5	1.5	1.6	4.4	19	<1	<0.5	110	<0.5	120	<0.5
W-1403	05-AUG-10	E601	2.8	18	1.2	5.4	42	<1	3.7	67	<0.5	360	<0.5
W-1904 ^a	26-DEC-07	E601	<0.5	<0.5	0.54	0.67	5.8	<1	<0.5	39	<0.5	42	<0.5
W-2005	13-JUL-10	E601	0.82	0.82	<0.5	<0.5	11	<1	<0.5	24	<0.5	31	<0.5
SIP-ETC-201 ^a	26-DEC-07	E601	<0.5	0.55	0.59	1.1	8.5	<1	<0.5	59	<0.5	60	<0.5
TFD-SS													
W-1523	14-JUL-10	E601	7.4	4.5	0.87	2.3	25	<1	2.4	29	<0.5	220	<0.5
W-1601	14-JUL-10	E601	3.6	4.5	1.7	5.5	30	1.3	1.7	95	<0.5	250	<0.5
W-1602	14-JUL-10	E601	<0.5	1.4	<0.5	<0.5	<0.5	<1	<0.5	1.1	<0.5	11	8.7
W-1603	14-JUL-10	E601	1.4	2.1	1.5	4.7	21	1.6	<0.5	31	<0.5	190	9.1
TFD-W													
W-1215	15-JUL-10	E601	<0.5	5.6	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	5	31
W-1216	15-JUL-10	E601	<0.5	3.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	5.2	54
W-1902	15-JUL-10	E601	0.63	3.3	<0.5	<0.5	<0.5	<1	0.62	<0.5	<0.5	6.8	91
TFE-E													
W-566	19-JUL-10	E601	0.61	5.2	<0.5	<0.5	5.2	<1	11	3.9	<0.5	54	<0.5
W-1109	19-JUL-10	E601	<0.5	0.7	0.58	<0.5	45	<1	8.1	72	<0.5	220	<0.5
W-1903	22-SEP-10	E601	<0.5	<0.5	<0.5	<0.5	33	<1	9.6	24	<0.5	43	<0.5
W-1909	22-SEP-10	E601	<0.5	<0.5	1.4	<0.5	99	1.8	4.8	210	<0.5	360	<0.5
W-2305	22-SEP-10	E601	<0.5	0.67	1.4	<0.5	100	1.1	19	190	<0.5	410	<0.5
TFE-HS													
W-2012	13-JUL-10	E601	1.8	1.6	<0.5	<0.5	8.6	2.4	6.9	14	<0.5	250	<0.5
W-2105	13-JUL-10	E601	<0.5	1.5	<0.5	<0.5	3.1	9.7	6.7	13	<0.5	410	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl ₄ <-	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFE-NW													
W-1211	19-JUL-10	E601	0.54	3.1	<0.5	<0.5	<0.5	<1	1.2	<0.5	<0.5	11	<0.5
W-1409	18-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	0.91	<1	<0.5	1.5	<0.5	23	<0.5
TFE-SE													
W-359 ^a	12-APR-10	E601	3.5	0.84	<0.5	<0.5	18	<1	6.5	7.6	<0.5	150	0.93
TFE-SW													
W-1518	13-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	1.7	2	1.2	0.79	<0.5	11	<0.5
W-1520	13-JUL-10	E601	12	7.4	<0.5	3.7	3.4	8.9	<0.5	14	<0.5	290	<0.5
W-1522	13-JUL-10	E601	1.1	2.3	1.2	<0.5	9.5	21	2.7	2	<0.5	65	<0.5
TFE-W													
W-292	13-JUL-10	E601	<0.5	0.79	<0.5	<0.5	1.3	3	1.4	1.2	<0.5	21	<0.5
W-305	13-JUL-10	E601	<0.5	1.2	<0.5	<0.5	3.8	<1	16	8	<0.5	34	0.67
TFG-1													
W-1111	15-JUL-10	E601	3	10	<0.5	<0.5	1	<1	0.51	1.2	<0.5	4.2	<0.5
TFG-N													
W-1806	15-JUL-10	E601	<0.5	3.1	<0.5	<0.5	0.53	<1	<0.5	13	<0.5	3.4	<0.5
W-1807	15-JUL-10	E601	<0.5	3.2	<0.5	<0.5	1.8	<1	1.8	17	<0.5	5.6	<0.5
TF406													
W-1309	13-JUL-10	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	1.6	<0.5
W-1310	13-JUL-10	E601	<0.5	0.87	<0.5	<0.5	<0.5	<1	0.5	<0.5	<0.5	6.1	<0.5
GSW-445 ^a	26-MAR-09	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	3	<0.5
TF406-NW													
W-1801	13-JUL-10	E601	<0.5	1.6	<0.5	<0.5	<0.5	<1	7.4	0.81	<0.5	28	<0.5
TF518-N^c													
W-1410	08-SEP-10	E624	3.1	2.3	<1	<1	<1	<1	<1	<1	<1	24	<1
TF518-PZ													
W-1615	11-AUG-10	E601	<0.5	0.7	<0.5	<0.5	3.5	<1	<0.5	34	<0.5	130	<0.5
W-518-1913	11-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	0.6	<1	<0.5	10	<0.5	52	<0.5
W-518-1914	11-AUG-10	E601	<0.5	<0.5	<0.5	<0.5	0.55	1.3	<0.5	410	<0.5	170	<0.5
W-518-1915 ^b	11-AUG-10	E601	<5	<5	<5	<5	8.6	<10	<5	170	<5	2400	<5
SVB-518-201 ^a	07-FEB-08	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	35	<0.5	8.5	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl ₄ <-	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TF518-PZ (cont.)													
SVB-518-204 ^a	07-FEB-08	E601	<0.5	0.63	<0.5	<0.5	1.4	<1	<0.5	43	<0.5	550	<0.5
TF5475-1^c													
W-1302-2 ^a	18-JUL-07	E601	1.8	19	0.73	3.4	20	<1	7.4	41	<0.5	260	<0.5
TF5475-2													
W-1108	13-JUL-10	E601	2	24	0.73	2.7	21	<1	7	34	<0.5	300	<0.5
W-1415 ^a	21-JAN-10	E601	1.7	19	0.62	2.1	19	<1	8.4	32	<0.5	260	<0.5
TF5475-3^c													
W-1604 ^a	21-AUG-07	E601	2.9	29	0.94	5.2	23	<1	17	45	<0.5	390	<0.5
W-1605 ^a	24-JUN-10	E601	<0.5	22	0.6	11	3.3	1.5	<0.5	7.8	<0.5	87	<0.5
W-1608 ^a	24-JUN-10	E601	<0.5	26	<0.5	4.8	2.3	1.8	<0.5	6	<0.5	51	<0.5
W-1609 ^a	24-JUN-10	E601	<0.5	36	0.71	6.7	6.5	<1	<0.5	12	<0.5	100	<0.5

Notes on following page.

Table A-2. VOC analyses of samples from treatment facility extraction wells.

^a Most recent VOC sample results available.

^b Elevated detection limit due to dilution.

^c Treatment Facility did not operate during reporting period. Please refer to Table A-1 for details.

Notes:

CCl_4 = Carbon tetrachloride

CHCl_3 = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl ₄ <-	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE PPM(V/V)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
VTDF-ETCS													
W-1904 ^a	09-JUN-09	TO15DIT	<0.005	0.041	0.0056	<0.005	0.25	<0.005	<0.005	2.1	<0.005	0.67	<0.005
W-ETC-2003	28-JUL-10	TO15DIF	<0.005	<0.005	<0.005	<0.005	0.02	<0.005	<0.005	0.23	<0.005	0.065	<0.005
W-ETC-2004A	28-JUL-10	TO15DIF	<0.005	0.018	<0.005	<0.005	<0.005	<0.005	<0.005	0.36	<0.005	0.095	<0.005
W-ETC-2004B	28-JUL-10	TO15DIF	<0.005	0.014	0.014	<0.005	0.14	<0.005	<0.005	1.8	<0.005	1.2	<0.005
SIP-ETC-201 ^a	09-JUN-09	TO15DIT	<0.005	0.009	0.037	0.0059	0.65	<0.005	<0.005	2.9	<0.005	1.4	<0.005
VTDF-HPD													
W-1552 ^a	13-FEB-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.011	<0.005	0.2	<0.005
W-1650 ^a	03-JUL-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
W-1651 ^a	03-JUL-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
W-1652 ^a	03-JUL-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
W-1653 ^a	03-JUL-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
W-1654 ^a	03-JUL-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
W-1655 ^a	03-JUL-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
W-1656 ^a	03-JUL-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
W-1657 ^a	03-JUL-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
W-HPA-002A	20-JUL-10	TO15DIT	0.014	0.012	<0.005	<0.005	0.0071	<0.005	<0.005	0.1	<0.005	0.42	<0.005
W-HPA-002B ^a	23-JUL-09	TO15DIT	<0.011	0.011	<0.011	<0.011	<0.011	<0.011	<0.011	0.056	<0.011	0.46	<0.011
VTDF-HS^b													
W-653 ^a	03-NOV-09	TO15DIT	0.026	<0.005	<0.005	<0.005	<0.005	<0.005	0.016	<0.005	<0.005	0.58	<0.005
W-2011 ^a	15-FEB-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.081	<0.005
W-2101 ^a	03-NOV-09	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.052	<0.005
W-2102 ^a	15-FEB-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.11	<0.005
VTFE-ELM^c													
W-1903 ^a	08-JUL-09	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
W-1909 ^a	10-JUL-09	TO15DIT	<0.005	<0.005	0.0058	<0.005	0.95	<0.005	0.44	0.75	<0.005	1.5	<0.005
W-2305 ^a	10-JUL-09	TO15DIT	<0.01	<0.01	<0.01	<0.01	6	0.012	2.3	3.3	<0.01	7.5	0.014
W-543-001 ^a	01-JUL-09	TO15DIT	<0.005	<0.005	<0.005	<0.005	0.11	<0.005	0.017	0.34	<0.005	0.32	<0.005
W-543-003 ^a	06-MAY-10	TO15DIF	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.009	<0.005	0.012	<0.005
W-543-1908 ^a	01-JUL-09	TO15DIT	<0.005	<0.005	<0.005	<0.005	0.072	<0.005	0.019	0.13	<0.005	0.33	<0.005
VTFE-HS													
W-ETS-2008A ^a	06-MAY-10	TO15DIF	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.035	<0.005	0.082	<0.005
W-ETS-2008B ^a	06-MAY-10	TO15DIF	<0.005	0.0072	<0.005	<0.005	0.031	0.0078	0.071	0.51	<0.005	1.6	<0.005
W-ETS-2009 ^a	26-MAY-10	TO15DIF	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.04	<0.005
W-ETS-2010A ^a	17-JUN-10	TO15DIF	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.037	<0.005	0.1	<0.005
W-ETS-2010B ^a	26-MAY-10	TO15DIF	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.018	0.042	<0.005	0.36	<0.005

Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl ₄ <-	CHCl ₃ -	1,1-DCA -	1,2-DCA -	1,1-DCE PPM(V/V)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
VTFE-HS (cont.)													
W-2105	28-JUL-10	TO15DIF	<0.005	<0.005	<0.005	<0.005	0.024	<0.005	0.042	0.11	<0.005	0.5	<0.005
VTF406-HS													
W-217	26-JUL-10	TO15DIT	0.2	0.028	0.013	<0.005	1.4	0.012	0.21	1.7	<0.005	2.5	0.0089
W-514-2007A	26-JUL-10	TO15DIT	0.012	<0.005	<0.005	<0.005	0.025	<0.005	0.018	0.088	<0.005	0.35	0.069
W-514-2007B	26-JUL-10	TO15DIT	0.1	0.017	0.012	<0.005	0.78	0.011	0.069	0.6	<0.005	2.2	0.019
VTF511													
W-274 ^a	04-OCT-06	TO15DI	0.14	0.02	<0.0062	<0.0062	0.07	<0.0062	0.014	0.33	<0.0062	6.1	0.38
W-1517 ^a	20-DEC-07	TO15DI	0.0066	<0.005	<0.005	<0.005	0.0068	<0.005	<0.005	0.022	<0.005	0.65	0.016
W-2204 ^a	21-MAY-09	TO15DIT	0.098	0.034	<0.005	0.038	0.019	<0.005	0.0082	0.42	<0.005	3.9	<0.005
W-2206 ^a	21-MAY-09	TO15DIT	0.013	0.022	<0.005	0.024	<0.005	<0.005	<0.005	0.24	<0.005	2	<0.005
W-2207A ^a	14-MAY-09	TO15DIT	<0.005	0.0055	<0.005	<0.005	0.0053	<0.005	<0.005	0.01	<0.005	1.5	<0.005
W-2207B	26-JUL-10	TO15DIT	0.42	0.17	0.12	<0.062	2.4	0.21	0.16	0.84	<0.062	52	0.14
W-2208A ^a	14-MAY-09	TO15DIT	0.025	0.016	<0.01	<0.01	0.05	<0.01	<0.01	0.019	<0.01	9.8	0.026
W-2208B	26-JUL-10	TO15DIT	0.0071	0.014	<0.005	<0.005	0.011	<0.005	<0.005	0.013	<0.005	4.2	<0.005
W-2205 ^a	21-MAY-09	TO15DIT	0.18	0.033	<0.005	0.0052	0.045	<0.005	0.0078	0.23	<0.005	3.6	0.012
VTF518-PZ													
W-1615	12-AUG-10	TO15DIT	0.04	0.013	<0.0072	<0.0072	0.6	<0.0072	0.24	3.2	0.0075	9.2	<0.0072
W-518-1913 ^a	17-AUG-09	TO15DIT	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	0.19	<0.17
W-518-1914 ^a	17-AUG-09	TO15DIT	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	1.1	<0.12	0.61	<0.12
W-518-1915	28-SEP-10	TO15DIT	<0.056	<0.056	<0.056	<0.056	0.41	<0.056	<0.056	19	<0.056	39	<0.056
SVB-518-201 ^a	14-AUG-09	TO15DIT	<0.076	<0.076	<0.076	<0.076	<0.076	<0.076	<0.076	<0.076	<0.076	0.26	<0.076
SVB-518-204 ^a	15-JAN-08	TO15DI	<0.02	<0.02	<0.02	<0.02	0.051	<0.02	<0.02	2.4	<0.02	15	<0.02
VTF5475^d													
W-ETS-507 ^a	23-SEP-09	TO15DI	<0.005	2.7	<0.005	0.023	<0.005	<0.005	<0.005	0.54	<0.005	2.1	<0.005
W-1605 ^a	06-SEP-07	TO15DI	0.0069	0.17	<0.005	0.15	0.11	<0.005	0.036	0.1	<0.005	0.85	<0.005
W-1608 ^a	06-SEP-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0061	<0.005
W-2211 ^a	30-JUN-10	TO15DIT	0.012	0.58	0.02	0.068	0.3	<0.005	0.053	0.22	<0.005	1.6	<0.005
W-2212 ^a	30-JUN-10	TO15DIT	0.048	0.73	0.031	0.033	0.94	<0.005	0.18	0.42	<0.005	3	<0.005
W-2302	01-JUL-10	TO15DIT	0.041	0.54	0.02	0.015	0.79	<0.011	0.12	0.61	<0.011	8.6	<0.011
W-2303	01-JUL-10	TO15DIT	0.0078	0.72	0.032	0.065	0.27	<0.005	0.02	0.35	<0.005	2.3	<0.005
SVI-ETS-504 ^a	29-JUN-10	TO15DIT	<0.005	0.29	0.0088	<0.005	0.092	<0.005	<0.005	0.083	<0.005	0.39	<0.005

Notes on following page.

Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.

^a Most recent VOC vapor sample results available.

^b VTFD-HS did not operate during reporting period due to maintenance on TFD Main.

^c VTFE-ELM did not operate during reporting period due to facility modifications and upgrades.

^d VTF5475 did not operate during reporting period due to mixed waste disposition issues.

Notes:

CCl₄ = Carbon tetrachloride

CHCl₃ = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

Table A-4. Chromium analyses of influent, effluent and receiving water samples by treatment facility.

Treatment Facility	Sample Station	Date Sampled	Chromium (total)^a mg/L (ppm)	Hexavalent Chromium mg/L (ppm)
TFA	TFA-I001	06-JUL-10	0.011	0.012
	TFA-E001	06-JUL-10	0.01	0.012
TFA-E	W-254	08-JUL-10	0.009	NA
	STU06-E	08-JUL-10	0.0087	NA
TFB	TFB-I002	06-JUL-10	0.018	NA
	TFB-E002	06-JUL-10	0.018	NA
	TFB-E002	03-AUG-10	0.019	NA
	TFB-E002	07-SEP-10	0.023	NA
	TFB-R002	06-JUL-10	0.015	NA
TFC	TFC-I003	07-JUL-10	0.022	NA
	TFC-E003	07-JUL-10	0.023	NA
	TFC-E003	03-AUG-10	0.021	NA
	TFC-E003	07-SEP-10	0.025	NA
	TFC-R003	07-JUL-10	0.0074	NA
TFC-E	MTU1-I	13-JUL-10	0.043	NA
	MTU1-E	13-JUL-10	0.0041	NA
	MTU1-E	04-AUG-10	0.002	NA
	MTU1-E	07-SEP-10	0.006	NA
TFC-SE	PTU1-I	08-JUL-10	0.032	NA
	PTU1-E	08-JUL-10	0.031	NA
	PTU1-E	04-AUG-10	0.03	NA
	PTU1-E	08-SEP-10	0.032	NA
TFD	TFD-I004	07-JUL-10	0.0089	NA
	TFD-E004	07-JUL-10	0.0093	NA
TFD-E	PTU8-I	08-JUL-10	0.0071	NA
	PTU8-E	08-JUL-10	0.0072	NA
TFD-HPD	PTU10-I	15-JUL-10	0.014	NA
	PTU10-E	15-JUL-10	0.012	NA
TFD-S	PTU2-I	14-JUL-10	0.013	NA
	PTU2-E	14-JUL-10	0.013	NA
TFD-SE	PTU11-I	13-JUL-10	0.0096	NA
	PTU11-E	13-JUL-10	0.0097	NA
TFD-SS	PTU12-I	14-JUL-10	0.011	NA
	PTU12-E	14-JUL-10	0.01	NA
TFD-W	PTU6-I	15-JUL-10	0.01	NA
	PTU6-E	15-JUL-10	0.011	NA
TFE-E	PTU3-I	19-JUL-10	0.0085	NA
	PTU3-E	19-JUL-10	0.0086	NA
TFE-HS	GTU07-I	13-JUL-10	0.0073	NA
	GTU07-E	13-JUL-10	<0.001	NA
TFE-NW	PTU9-I	19-JUL-10	0.011	NA
	PTU9-E	19-JUL-10	0.011	NA

Table A-4. Chromium analyses of influent, effluent and receiving water samples by treatment facility.

Treatment Facility	Sample Station	Date Sampled	Chromium (total)^a mg/L (ppm)	Hexavalent Chromium mg/L (ppm)
TFE-SE	MTU04-I	13-JUL-10	0.0074	NA
	MTU04-E	13-JUL-10	0.0074	NA
TFE-SW	MTU03-I	13-JUL-10	0.0051	NA
	MTU03-E	13-JUL-10	0.0054	NA
TFE-W	MTU05-I	13-JUL-10	0.011	NA
	MTU05-E	13-JUL-10	0.011	NA
TFG-1	W-1111	15-JUL-10	0.008	NA
	GTU01-E	15-JUL-10	0.0068	NA
	TFG-ASW	15-JUL-10	0.013	NA
TFG-N	MTU02-I	15-JUL-10	0.0081	NA
	MTU02-E	15-JUL-10	0.0083	NA
TF406	PTU5-I	13-JUL-10	0.015	NA
	PTU5-E	13-JUL-10	0.014	NA
TF406-NW	W-1801	13-JUL-10	0.0024	NA
	GTU03-E	13-JUL-10	<0.001	NA
TF5475-2	GTU09-I	13-JUL-10	0.014	NA
	GTU09-E	13-JUL-10	0.01	NA

^aA discharge limit of 0.050 ppm is set for total chromium during the dry season (April 1-November 30), and no limit is set for total chromium for the wet season (December 1-March 31); however, a limit of 0.022 ppm hexavalent chromium applies during the wet season. Discharge limits are defined in the Explanation of Significant Differences for metals discharge limits (April 1997).

Shaded values exceeded the discharge limit. See text for explanation.

Table A-5. Bioassay, turbidity, and chloride analyses of influent and effluent samples by treatment facility.

Treatment Facility	Sample Station	Date Sampled	Aquatic Bioassay^a Percent Survival	Turbidity Nephelometric Turbidity Units (NTU)	Chloride (mg/L)
TFA	TFA-I001	06-JUL-10	NA	NA	82
TFA	TFA-E001	06-JUL-10	100 (100)	0.14	81
TFA-E	STU06-E	08-JUL-10	100 (100)	NA	NA
TFB	TFB-E002	06-JUL-10	100 (100)	NA	NA
TFC	TFC-E003	07-JUL-10	100 (100)	NA	NA
TFC-E	MTU1-E	13-JUL-10	100 (100)	NA	NA
TFC-SE	PTU1-E	08-JUL-10	100 (100)	NA	NA
TFD	TFD-E004	07-JUL-10	100 (100)	NA	NA
TFD-E	PTU8-E	08-JUL-10	100 (100)	NA	NA
TFD-HPD	PTU10-E	15-JUL-10	100 (100)	NA	NA
TFD-S	PTU2-E	14-JUL-10	100 (100)	NA	NA
TFD-SE	PTU11-E	13-JUL-10	100 (100)	NA	NA
TFD-SS	PTU12-E	14-JUL-10	100 (100)	NA	NA
TFD-W	PTU6-E	15-JUL-10	100 (100)	NA	NA
TFE-E	PTU3-E	19-JUL-10	100 (100)	NA	NA
TFE-HS	GTU07-E	13-JUL-10	100 (100)	NA	NA
TFE-NW	PTU9-E	19-JUL-10	100 (100)	NA	NA
TFE-SE	MTU04-E	13-JUL-10	100 (100)	NA	NA
TFE-SW	MTU03-E	13-JUL-10	100 (100)	NA	NA
TFE-W	MTU05-E	13-JUL-10	100 (100)	NA	NA
TFG-1	GTU01-E	15-JUL-10	100 (100)	NA	NA
TFG-N	MTU02-E	15-JUL-10	100 (100)	NA	NA
TF406	PTU5-E	13-JUL-10	100 (100)	NA	NA
TF406-NW	GTU03-E	13-JUL-10	100 (100)	NA	NA
TF5475-2	GTU09-E	13-JUL-10	100 (100)	NA	NA

^aTest species was Fathead minnow and the test duration was 96 hours.

Percent survival in the control group samples shown in parentheses.

Note: NA = not applicable

Explanation of Abbreviations

TFA-I001 is a sampling port located immediately prior to the TFA Treatment System.

TFA-E001 is a sampling port located immediately after the TFA Treatment System, at the beginning of the discharge pipeline.

TFA receiving water is routinely sampled at the TFG-ASW location.

TFA-W-I is an influent sampling port prior to the sediment bag filter immediately following W-404.

TFA-W-E is an effluent sampling port immediately following the sediment bag filter; the water is then discharged to the Livermore Water Reclamation Plant (LWRP).

TFB-I002 is a sampling port located immediately prior to the TFB Treatment System.

TFB-E002 is a sampling port located immediately after the TFB Treatment System, at the beginning of the discharge pipeline.

TFB-R002 is a sampling station in the drainage ditch north of TFB, located approximately 75 ft downstream from the discharge point.

TFC-I003 is a sampling port located immediately prior to the TFC Treatment System.

TFC-E003 is a sampling port located immediately after the TFC Treatment System, at the beginning of the discharge pipeline.

TFC-R003 is a sampling station in Arroyo Las Positas, located approximately 75 ft downstream from the TFC discharge point.

TFD-I004 is a sampling port located immediately prior to the TFD Treatment System.

TFD-E004 is a sampling port located immediately after the TFD Treatment System, prior to discharge to the Drainage Retention Basin or to the underground discharge pipeline leading to Arroyo Las Positas.

TFD-R004 is now combined with and collected at the TFC-R003 location. Results are reported under TFC-R003, as approved by the RWQCB.

CRD1-I is a sampling port located immediately prior to the catalytic column in the Catalytic Reductive Dehalogenation treatment unit 1 (CRD1).

CRD1-E is the effluent from the catalytic column in the Catalytic Reductive Dehalogenation treatment unit 1 (CRD1) and then reinjected at W-1302.

CRD2-I is a sampling port located immediately prior to the catalytic columns in the Catalytic Reductive Dehalogenation treatment unit 2 (CRD2).

CRD2-E is the effluent from the last catalytic column in the Catalytic Reductive Dehalogenation treatment unit 2 (CRD2) and then reinjected at W-1610.

GTU01-I is a sampling port located immediately prior to GTU01, which is currently operating in the TFG-1 area.

GTU01-E is a sampling port located immediately after GTU01, which is currently operating in the TFG-1 area.

GTU01 receiving water is routinely sampled at the TFG-ASW location.

GTU03-I is a sampling port located immediately prior to GTU03, which is currently operating in the TF406 Northwest area.

GTU03-E is a sampling port located immediately after GTU03, which is currently operating in the TF406 Northwest area.

GTU03 receiving water is routinely sampled at the TFC-R003 location.

GTU07-I is a sampling port located immediately prior to GTU07, which is currently operating in the TFE Hotspot area.

GTU07-E is a sampling port located immediately after GTU07, which is currently operating in the TFE Hotspot area.

GTU07 receiving water is routinely sampled at the TFC-R003 location.

GTU09-I is a sampling port located immediately prior to GTU09, which is currently operating in the TF5475 area.

GTU09-E is a sampling port located immediately after GTU09, which is currently operating in the TF5475 area.

GTU09 receiving water is routinely sampled at the TFC-R003 location.

MTU02-I is a sampling port located immediately prior to MTU02, which is currently operating in the TFG North area.

MTU02-E is a sampling port located immediately after MTU02, which is currently operating in the TFG North area.

MTU02 receiving water is routinely sampled at the TFC-R003 location.

MTU03-I is a sampling port located immediately prior to MTU03, which is currently operating in the TFE Southwest area.

MTU03-E is a sampling port located immediately after MTU03, which is currently operating in the TFE Southwest area.

MTU03 receiving water is routinely sampled at the TFC-R003 location.

MTU04-I is a sampling port located immediately prior to MTU04, which is currently operating in the TFE Southeast area.

MTU04-E is a sampling port located immediately after MTU04, which is currently operating in the TFE Southeast area.

MTU04 receiving water is routinely sampled at the TFC-R003 location.

MTU05-I is a sampling port located immediately prior to MTU05, which is currently operating in the TFE West area.

MTU05-E is a sampling port located immediately after MTU05, which is currently operating in the TFE West area.

MTU05 receiving water is routinely sampled at the TFC-R003 location.

Explanation of Abbreviations

MTU1-I is a sampling port located immediately prior to MTU1, which is currently operating in the TFC East area.

MTU1-E is a sampling port located immediately after MTU1, which is currently operating in the TFC East area.

MTU1 receiving water is routinely sampled at the TFC-R003 location.

PTU1-I is a sampling port located immediately prior to PTU-1, which is currently operating in the TFC Southeast area.

PTU1-E is a sampling port located immediately after PTU-1, which is currently operating in the TFC Southeast area.

PTU1 receiving water is routinely sampled at the TFC-R003 location.

PTU2-I is a sampling port located immediately prior to PTU-2, which is currently operating in the TFD South area.

PTU2-E is a sampling port located immediately after PTU-2, which is currently operating in the TFD South area.

PTU2 receiving water is routinely sampled at TFC-R003 during the wet season.

PTU3-I is a sampling port located immediately prior to PTU-3, which is currently operating in the TFE East area.

PTU3-E is a sampling port located immediately after PTU-3, which is currently operating in the TFE East area.

PTU3 receiving water is routinely sampled at the TFC-R003 location.

PTU5-I is a sampling port located immediately prior to PTU-5, which is currently operating in the TF406 extraction location.

PTU5-E is a sampling port located immediately after PTU-5, which is currently operating in the TF406 extraction location.

PTU5 receiving water is routinely sampled at the TFC-R003 location.

PTU6-I is a sampling port located immediately prior to PTU-6, which is currently operating in the TFD West area.

PTU6-E is a sampling port located immediately after PTU-6, which is currently operating in the TFD West area.

PTU6 receiving water is routinely sampled at the TFC-R003 location.

PTU8-I is a sampling port located immediately prior to PTU-8, which is currently operating in the TFD East area.

PTU8-E is a sampling port located immediately after PTU-8, which is currently operating in the TFD East area.

PTU8 receiving water is routinely sampled at the TFC-R003 location.

PTU9-I is a sampling port located immediately prior to PTU-9, which is currently operating in the TFE Northwest area.

PTU9-E is a sampling port located immediately after PTU-9, which is currently operating in the TFE Northwest area.

PTU9 receiving water is routinely sampled at the TFC-R003 location.

PTU10-I is a sampling port located immediately prior to PTU-10, which is currently operating in the TFD Helipad area.

PTU10-E is a sampling port located immediately after PTU-10, which is currently operating in the TFD Helipad area.

PTU10 receiving water is routinely sampled at the TFC-R003 location.

PTU11-I is a sampling port located immediately prior to PTU-11, which is currently operating in the TFD Southeast area.

PTU11-E is a sampling port located immediately after PTU-11, which is currently operating in the TFD Southeast area.

PTU11 receiving water is routinely sampled at the TFC-R003 location.

PTU12-I is a sampling port located immediately prior to PTU-12, which is currently operating in the TFD Southshore area.

PTU12-E is a sampling port located immediately after PTU-12, which is currently operating in the TFD Southshore area.

PTU12 receiving water is routinely sampled at the TFC-R003 location.

STU06-I is a sampling port located immediately prior to STU06, which is operating in the TFA East area.

STU06-E is a sampling port located immediately after STU06, which is operating in the TFA East area.

STU06 receiving water is routinely sampled at the TFG-ASW location.

STU09-I is a sampling port located immediately prior to STU09, which is currently operating in the TF518-North area.

STU09-E is a sampling port located immediately after STU09, which is currently operating in the TF518-North area.

STU09 receiving water is routinely sampled at the TFC-R003 location.

Attachment B

Self-Monitoring Reports

Self-Monitoring Report

LLNL Treatment Facility A (TFA)

AREA TFA

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	01	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): **687**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-06-2010</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>20.3</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-408	1,073,200	26.3
W-605	357,300	8.7
W-457	154,900	5.5
W-518	0	0.0
W-522	0	0.0
W-614	0	0.0
W-712	309,300	7.7
W-714	315,000	7.9
W-903	0	0.0
W-904	1,577,900	38.7
W-415	1,441,200	35.7
W-262	0	0.0
W-109	1,271,300	31.2
W-1009	1,005,200	24.7
W-1004	468,300	11.6
W-1001	136,100	3.1
Total:	<u>8,109,700</u>	<u>201.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>3,800,600</u>

Self-Monitoring Report (cont'd)
LLNL Treatment Facility A (TFA)
AREA TFA

Arroyo Seco

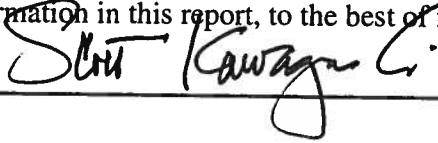
TFG-ASW

4,309,100

6. Comments:

Facility secured on 6-30-10 to install variable speed drive AC unit. Restarted on 7-2-10. W-457 secured on 7-27-10 to replace flow meter.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-30-2010

Self-Monitoring Report

LLNL Treatment Facility A (TFA)

AREA TFA

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>																
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>		
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>		

Total monthly time facility operated (hours): 752

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-03-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>18.6</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-408	1,183,300	26.7
W-605	394,100	8.8
W-457	27,300	5.0
W-518	0	0.0
W-522	0	0.0
W-614	0	0.0
W-712	331,300	7.4
W-714	354,100	7.7
W-903	0	0.0
W-904	1,756,300	39.4
W-415	1,591,200	35.2
W-262	0	0.0
W-109	1,398,200	31.5
W-1009	1,092,100	24.7
W-1004	512,800	11.7
W-1001	148,900	3.3
Total:	<u>8,789,600</u>	<u>201.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>4,487,100</u>

Self-Monitoring Report (cont'd)
LLNL Treatment Facility A (TFA)
AREA TFA

Arroyo Seco

TFG-ASW

4,302,500

6. Comments:

W-457 accumulator repaired, and well started on 8-25-10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: 08-30-2010

Self-Monitoring Report

LLNL Treatment Facility A (TFA)

AREA TFA

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>31</u>																			
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>					
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>					

Total monthly time facility operated (hours): 728

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-07-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>19.9</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-408	1,203,500	26.4
W-605	368,300	8.8
W-457	122,700	2.8
W-518	0	0.0
W-522	0	0.0
W-614	0	0.0
W-712	313,700	7.3
W-714	343,500	8.1
W-903	0	0.0
W-904	860,100	39.2
W-415	1,574,500	33.5
W-262	0	0.0
W-109	1,395,900	31.2
W-1009	1,034,000	24.3
W-1004	488,700	11.6
W-1001	140,900	3.4
Total:	<u>7,845,800</u>	<u>196.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>3,895,300</u>

Self-Monitoring Report (cont'd)
LLNL Treatment Facility A (TFA)
AREA TFA

Arroyo Seco

TFG-ASW

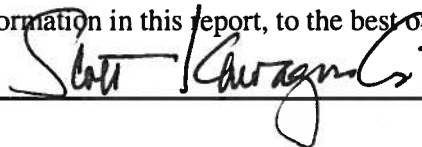
3,950,500

6. Comments:

Facility down on 9-14-10 for interlock checks. Restarted on 9-15-10. W-904 secured on 9-14-10 due to leak switch failure. Facility down on 9-19-10 due to I/O fault. Restarted on 9-20-10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____



Date: 10-02-2010

Self-Monitoring Report
LLNL Solar Treatment Unit 06 (STU06)
AREA TFA-E

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 469

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 07-08-2010
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 20.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-254	37,561	1.3
Total:	<u>37,561</u>	<u>1.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>37,561</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: 07-30-2010

Self-Monitoring Report
LLNL Solar Treatment Unit 06 (STU06)
AREA TFA-E

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>														
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	26	27	28	29	30

Total monthly time facility operated (hours): 323

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-04-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>24.2</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-254	<u>25,703</u>	<u>1.3</u>
Total:	<u>25,703</u>	<u>1.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>25,703</u>

6. Comments:

Facility secured on 8-25-10 due to flow meter failure.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Shirley Lawrence Date: 08-30-2010

Self-Monitoring Report
LLNL Solar Treatment Unit 06 (STU06)
AREA TFA-E

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

August	31																
September	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15		
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>		

Total monthly time facility operated (hours): 127

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-16-2010</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>24.8</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-254	9,964	1.3
Total:	<u>9,964</u>	<u>1.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>9,964</u>

6. Comments:

Batteries replaced and system started on 9-16-10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **10-02-2010**

**Self-Monitoring Report
LLNL Treatment Facility B (TFB)
AREA TFB**

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 728

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 07-06-2010
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 22.6

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-357	253,100	5.9
W-610	304,000	7.0
W-621	324,400	7.5
W-620	207,300	4.8
W-704	760,200	17.7
W-655	361,900	8.6
W-1423	211,000	5.0
Total:	<u>2,421,900</u>	<u>56.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>2,421,900</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Lawrence Date: 07-30-2010

Self-Monitoring Report
LLNL Treatment Facility B (TFB)
AREA TFB

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>																		
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 729

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-03-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>18.8</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-357	264,900	5.7
W-610	305,400	7.1
W-621	327,500	7.2
W-620	204,400	4.8
W-704	755,400	17.6
W-655	372,500	8.4
W-1423	211,000	4.8
Total:	<u>2,441,100</u>	<u>55.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>2,441,100</u>

6. Comments:

Facility down on 8-19-10 due to low air stripper flow fault. Restarted on 8-20-10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: 08-30-2010

**Self-Monitoring Report
LLNL Treatment Facility B (TFB)
AREA TFB**

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

August 31
September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 726

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-07-2010
Influent pH: 7.0
Effluent pH: 7.5
Effluent Temperature (°C): 21.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-357	290,400	6.7
W-610	305,300	7.1
W-621	329,600	7.5
W-620	201,300	4.6
W-704	781,500	18.2
W-655	349,100	8.5
W-1423	213,000	4.7
Total:	<u>2,470,200</u>	<u>57.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>2,470,200</u>

6. Comments:

Facility went down on 9-9-10 due to low air stripper air flow. Restarted on 9-10-10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Kawaguchi Date: 10-02-2010

**Land Observation Report date:
TFB-R002 - West Perimeter Drainage Channel**

1. Reporting Period: Business Month July Year 2010
2. Date compliance sampling performed 07-06-2010
3. Weather Conditions:

Average air tempertaure (°C):	<u>19.6</u>
6-day total precipitation (in):	<u>0</u>
Average wind speed/direction (mph):	<u>6/ SW</u>

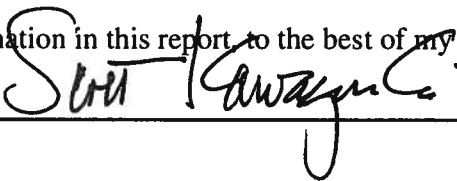
4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:
7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-30-2010

**Land Observation Report date:
TFB-R002 - West Perimeter Drainage Channel**

1. Reporting Period: Business Month August Year 2010

2. Date compliance sampling performed 08-03-2010

3. Weather Conditions:

Average air tempertaure (°C):	<u>18.9</u>
6-day total precipitation (in):	<u>0</u>
Average wind speed/direction (mph):	<u>5/ SW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Shirley Kawaguchi Date: 08-30-2010

**Land Observation Report date:
TFB-R002 - West Perimeter Drainage Channel**

1. Reporting Period: Business Month September Year 2010

2. Date compliance sampling performed 09-07-2010

3. Weather Conditions:

Average air tempertaure (°C):	<u>22.3</u>
6-day total precipitation (in):	<u>0</u>
Average wind speed/direction (mph):	<u>4/S</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Shirley K. Kavanagh Date: 10-15-2010

**Self-Monitoring Report
LLNL Treatment Facility C (TFC)
AREA TFC**

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 716

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-07-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>21.6</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-701	552,632	13.0
W-1015	168,536	3.8
W-1103	91,691	2.0
W-1104	1,142,160	27.0
W-1116	77,422	1.8
W-1102	145,964	3.5
Total:	<u>2,178,405</u>	<u>51.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>2,178,405</u>

6. Comments:

Facility down on 7-22-10 due to high air stripper fault. Restarted on 7-23-10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-30-2010

Self-Monitoring Report
LLNL Treatment Facility C (TFC)
AREA TFC

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>																		
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 741

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-03-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>19.8</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-701	590,360	12.5
W-1015	178,860	4.2
W-1103	93,007	2.3
W-1104	1,178,528	26.9
W-1116	82,581	1.9
W-1102	149,806	3.3
Total:	<u>2,273,142</u>	<u>51.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>2,273,142</u>

6. Comments:

Facility went down on 8-19-10 due to air stripper high water level. Restarted on 8-20-10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-30-2010

Self-Monitoring Report LLNL Treatment Facility C (TFC) AREA TFC

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>31</u>																														
September	<table style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;"><u>01</u></td> <td style="text-align: center;"><u>02</u></td> <td style="text-align: center;"><u>03</u></td> <td style="text-align: center;"><u>04</u></td> <td style="text-align: center;"><u>05</u></td> <td style="text-align: center;"><u>06</u></td> <td style="text-align: center;"><u>07</u></td> <td style="text-align: center;"><u>08</u></td> <td style="text-align: center;"><u>09</u></td> <td style="text-align: center;"><u>10</u></td> <td style="text-align: center;"><u>11</u></td> <td style="text-align: center;"><u>12</u></td> <td style="text-align: center;"><u>13</u></td> <td style="text-align: center;"><u>14</u></td> <td style="text-align: center;"><u>15</u></td> </tr> <tr> <td style="text-align: center;"><u>16</u></td> <td style="text-align: center;"><u>17</u></td> <td style="text-align: center;"><u>18</u></td> <td style="text-align: center;"><u>19</u></td> <td style="text-align: center;"><u>20</u></td> <td style="text-align: center;"><u>21</u></td> <td style="text-align: center;"><u>22</u></td> <td style="text-align: center;"><u>23</u></td> <td style="text-align: center;"><u>24</u></td> <td style="text-align: center;"><u>25</u></td> <td style="text-align: center;"><u>26</u></td> <td style="text-align: center;"><u>27</u></td> <td style="text-align: center;"><u>28</u></td> <td style="text-align: center;"><u>29</u></td> <td style="text-align: center;"><u>30</u></td> </tr> </table>	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>
<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>																	
<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>																	

Total monthly time facility operated (hours): **703**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-07-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>20.4</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-701	565,560	13.7
W-1015	166,308	3.9
W-1116	79,175	1.9
W-1103	88,640	2.1
W-1104	1,121,232	27.2
W-1102	142,117	3.5
Total:	<u>2,163,032</u>	<u>52.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>2,163,032</u>

6. Comments:

Facility down on 9-19-10 due to power outage. Restarted on 9-20-10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **10-02-2010**

**Land Observation Report date:
TFC-R003 - Arroyo Las Positas**

1. Reporting Period: Business Month July Year 2010

2. Date compliance sampling performed 07-07-2010

3. Weather Conditions:

Average air tempertaure (°C):	<u>20</u>
6-day total precipitation (in):	<u>0</u>
Average wind speed/direction (mph):	<u>6/ SW</u>

4. Receiving Data:

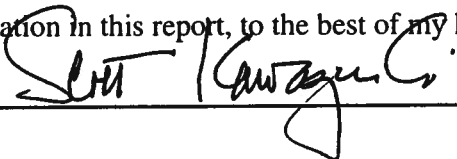
<u>Sample</u> <u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-30-2010

**Land Observation Report date:
TFC-R003 - Arroyo Las Positas**

1. Reporting Period: Business Month August Year 2010

2. Date compliance sampling performed 08-03-2010

3. Weather Conditions:

Average air tempertaure (°C):	<u>18.9</u>
6-day total precipitation (in):	<u>0</u>
Average wind speed/direction (mph):	<u>5/ SW</u>

4. Receiving Data:

Sample <u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: 08-30-2010

**Land Observation Report date:
TFC-R003 - Arroyo Las Positas**

1. Reporting Period: Business Month September Year 2010

2. Date compliance sampling performed 09-07-2010

3. Weather Conditions:

Average air tempertaure (°C):	<u>22.3</u>
6-day total precipitation (in):	<u>0</u>
Average wind speed/direction (mph):	<u>4/ S</u>

4. Receiving Data:

Sample Location	pH	Temperature (C)
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Shu Kawazu Date: 10-02-2010

Self-Monitoring Report
LLNL Mini Treatment Unit 1 (MTU1)
AREA TFC-E

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 662

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 07-13-2010
Influent pH: 6.5
Effluent pH: 7.0
Effluent Temperature (°C): 20.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-413	581,488	14.9
W-368	227,410	5.8
Total:	<u>808,898</u>	<u>20.7</u>


5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>808,898</u>

6. Comments:

Facility was shut down on 7-25 for resin change out, facility would not restart.
Facility was rebooted and restarted on 7-27.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-02-2010

Self-Monitoring Report
LLNL Mini Treatment Unit 1 (MTU1)
AREA TFC-E

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>														
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 739

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-04-2010</u>
Influent pH:	<u>6.5</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>20.1</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-413	651,739	14.1
W-368	256,387	5.7
Total:	<u>908,126</u>	<u>19.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>908,126</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-31-2010

Self-Monitoring Report
LLNL Mini Treatment Unit 1 (MTU1)
AREA TFC-E

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

August 31
September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 620

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-07-2010
Influent pH: 6.5
Effluent pH: 7.0
Effluent Temperature (°C): 20.6

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-413	523,156	13.9
W-368	211,909	5.6
Total:	<u>735,065</u>	<u>19.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>735,065</u>

6. Comments:

Facility down for opto trouble shooting and repairs on 9/4, 9/5 and 9/6

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-30-2010

Self-Monitoring Report
LLNL Portable Treatment Unit 1 (PTU1)
AREA TFC-SE

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 729

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-08-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>21</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1213	343,368	8.0
W-2201	535,952	12.5
Total:	<u>879,320</u>	<u>20.5</u>

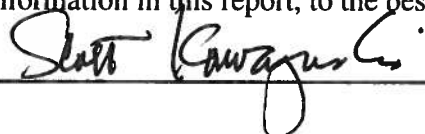
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>879,320</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____



Date: 07-30-2010

Self-Monitoring Report
LLNL Portable Treatment Unit 1 (PTU1)
AREA TFC-SE

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>																		
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 754

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-04-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>21.7</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1213	354,989	7.9
W-2201	554,416	12.3
Total:	<u>909,405</u>	<u>20.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>909,405</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Shen Kawaguchi Date: 08-30-2010

Self-Monitoring Report
LLNL Portable Treatment Unit 1 (PTU1)
AREA TFC-SE

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

August 31
September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 647

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-08-2010
Influent pH: 7.0
Effluent pH: 7.5
Effluent Temperature (°C): 19.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1213	303,755	7.9
W-2201	475,731	12.6
Total:	<u>779,486</u>	<u>20.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>779,486</u>

6. Comments:

Facility down on 9-6-10 due to power surge. Restarted on 9-7-10. Facility down on 9-19-10 due to power outage. Restarted on 9-20-10. Facility down on 9-29-10 to upgrade Belsperse pump. Restarted on 9-30-10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Shu Kawaguchi Date: 10-02-2010

Self-Monitoring Report LLNL Treatment Facility D (TFD) AREA TFD

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 724

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-07-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>22.4</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-907-2	0	0.0
W-653	0	0.0
W-906	149,300	3.5
W-351	52,200	1.2
W-1206	0	0.0
W-1208	979,100	22.6
W-2101	13,000	0.3
W-2102	0	0.0
W-2011	0	0.0
<hr/>		
Total:	<u>1,193,600</u>	<u>27.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,150,100</u>
<u>TFD irrigation supply</u>	<u>TFD-IRR</u>	<u>43,500</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL Treatment Facility D (TFD)
AREA TFD

Operator Signature: _____

Scott Kawaguchi

Date: 08-02-2010

Self-Monitoring Report

LLNL Treatment Facility D (TFD)

AREA TFD

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>														
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): **751**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-04-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>20.9</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-907-2	0	0.0
W-653	0	0.0
W-906	156,900	3.5
W-351	54,600	1.2
W-1206	218,300	6.0
W-1208	1,024,600	22.8
W-2101	2,600	0.3
W-2102	0	0.0
W-2011	0	0.0
Total:	<u>1,457,000</u>	<u>33.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,423,200</u>
<u>TFD irrigation supply</u>	<u>TFD-IRR</u>	<u>33,800</u>

6. Comments:

Started W-1206 on 8-9-10. Secured W-1206 on 8-10-10 due to transducer failure.
New transducer installed and well started on 8-12-10.

Self-Monitoring Report (cont'd)
LLNL Treatment Facility D (TFD)
AREA TFD

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-30-2010

**Self-Monitoring Report
LLNL Treatment Facility D (TFD)
AREA TFD**

1. Reporting Period: Business Month September Year **2010**

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>31</u>																
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>		
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>		

Total monthly time facility operated (hours): 750

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-08-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>20.8</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-907-2	0	0.0
W-653	0	0.0
W-906	157,900	3.6
W-351	53,900	1.2
W-1206	523,600	11.8
W-1208	1,020,000	23.1
W-2102	0	0.0
W-2101	19,500	0.3
W-2011	0	0.0
Total:	1,774,900	40.0

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,762,000</u>
<u>TFD irrigation supply</u>	<u>TFD-IRR</u>	<u>12,900</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL Treatment Facility D (TFD)
AREA TFD

Operator Signature: _____

Shirley Kawaguchi

Date: 10-02-2010

Self-Monitoring Report

LLNL Portable Treatment Unit 8 (PTU8)

AREA TFD-E

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	10	11	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	25	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): **596**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-08-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>20.4</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1253	0	0.0
W-1255	0	0.0
W-1307	207,300	5.9
W-1550	8,700	2.0
W-1306	5,800	0.3
W-1301	34,300	0.9
W-1404	0	0.0
W-1303	0	0.0
W-2006	300	0.1
W-2203	30,000	0.9
Total:	<u>286,400</u>	<u>10.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>286,400</u>

6. Comments:

Facility down on 7-9-10 due to high stripper level. Restarted on 7-12-10. Facility down on 7-15-10 due to Snap I/O fault. Restarted on 7-16-10. Secured on 7-22-10 for interlock check. Restarted on 7-23-10. Facility down on 7-24-10 due to Snap I/O fault. Restarted on 7-26-10.

Self-Monitoring Report (cont'd)
LLNL Portable Treatment Unit 8 (PTU8)
AREA TFD-E

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____

Scott Kawaguchi

Date: 07-30-2010

Self-Monitoring Report

LLNL Portable Treatment Unit 8 (PTU8)

AREA TFD-E

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>																
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	13	14	15		
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	21	22	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>		

Total monthly time facility operated (hours): 521

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-04-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>20.1</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1253	0	0.0
W-1255	0	0.0
W-1307	185,500	5.9
W-1550	30,600	1.9
W-1306	8,800	0.3
W-1301	32,400	0.9
W-1404	0	0.0
W-1303	0	0.0
W-2006	100	0.0
W-2203	19,900	0.8
Total:	<u>277,300</u>	<u>9.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>277,300</u>

6. Comments:

System down intermittently due to Snap I/O fault. W-2203 down on 8-24-10 due to transducer failure. W-2203 restarted on 8-30-10. Facility hours of operation estimated from logbook.

Self-Monitoring Report (cont'd)
LLNL Portable Treatment Unit 8 (PTU8)
AREA TFD-E

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kragusci Date: 08-30-2010

Self-Monitoring Report

LLNL Portable Treatment Unit 8 (PTU8)

AREA TFD-E

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>31</u>														
September	<u>01</u>	<u>02</u>	<u>03</u>	04	05	06	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	26	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 540

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-08-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>19.9</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1253	0	0.0
W-1255	0	0.0
W-1307	192,400	5.9
W-1550	41,300	1.3
W-1306	7,400	0.3
W-1301	37,100	0.9
W-1404	0	0.0
W-1303	0	0.0
W-2006	100	0.0
W-2203	26,700	2.7
Total:	<u>305,000</u>	<u>11.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>305,000</u>

6. Comments:

System down intermittently during month due to Snap I/O fault.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL Portable Treatment Unit 8 (PTU8)
AREA TFD-E

Operator Signature: Scott Kawaguchi Date: 10-02-2010

Self-Monitoring Report

LLNL Portable Treatment Unit 10 (PTU10)

AREA TFD-HPD

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 726

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-15-2010</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>21.8</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1254	648,066	15.0
W-1650	0	0.0
W-1651	0	0.0
W-1653	0	0.0
W-1654	0	0.0
W-1656	0	0.0
W-1657	0	0.0
W-1551	0	0.0
W-1652	0	0.0
W-1552	0	0.0
W-1655	0	0.0
Total:	<u>648,066</u>	<u>15.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>648,066</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL Portable Treatment Unit 10 (PTU10)
AREA TFD-HPD

Operator Signature: Billy D. Kuhl Date: 08-02-2010

Self-Monitoring Report

LLNL Portable Treatment Unit 10 (PTU10)

AREA TFD-HPD

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>																								
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>										
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>									

Total monthly time facility operated (hours): 778

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-05-2010</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>21.4</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1254	692,792	15.0
W-1650	0	0.0
W-1651	0	0.0
W-1653	0	0.0
W-1654	0	0.0
W-1656	0	0.0
W-1657	0	0.0
W-1551	0	0.0
W-1652	0	0.0
W-1552	0	0.0
W-1655	0	0.0
Total:	<u>692,792</u>	<u>15.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>692,792</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL Portable Treatment Unit 10 (PTU10)
AREA TFD-HPD

Operator Signature: Billy O. Kriehl Date: 09-22-2010

Self-Monitoring Report

LLNL Portable Treatment Unit 10 (PTU10)

AREA TFD-HPD

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 725

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-09-2010
 Influent pH: 7.5
 Effluent pH: 7.5
 Effluent Temperature (°C): 20.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1254	645,290	15.0
W-1650	0	0.0
W-1651	0	0.0
W-1653	0	0.0
W-1654	0	0.0
W-1656	0	0.0
W-1657	0	0.0
W-1551	0	0.0
W-1652	0	0.0
W-1552	0	0.0
W-1655	0	0.0
Total:	<u>645,290</u>	<u>15.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>645,290</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL Portable Treatment Unit 10 (PTU10)
AREA TFD-HPD

Operator Signature: Billy O. Ford Date: 10-06-2010

Self-Monitoring Report
LLNL Portable Treatment Unit 2 (PTU2)
AREA TFD-S

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	17	18	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	25	<u>26</u>	27	<u>28</u>	29	<u>30</u>

Total monthly time facility operated (hours): 537

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-01-2010</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>32.2</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1503	541,688	17.9
W-1510	259,884	8.4
W-1504	244,988	8.1
Total:	<u>1,046,560</u>	<u>34.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,046,560</u>

6. Comments:

All facility down time, for the month of July 2010, caused by "I/O communications error" in the facility control system.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-30-2010

Self-Monitoring Report
LLNL Portable Treatment Unit 2 (PTU2)
AREA TFD-S

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>																		
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	29	30	31			

Total monthly time facility operated (hours): 697

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-18-2010</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>22.9</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1503	742,424	17.8
W-1510	381,250	9.2
W-1504	335,164	8.0
Total:	<u>1,458,838</u>	<u>35.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,458,838</u>

6. Comments:

System secure from 8/28/10 through 8/31/10 due to high sump water level alarm.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-02-2010

Self-Monitoring Report
LLNL Portable Treatment Unit 2 (PTU2)
AREA TFD-S

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 651

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-15-2010
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 22.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1503	625,008	17.9
W-1510	205,069	9.0
W-1504	313,182	8.1
Total:	<u>1,143,259</u>	<u>34.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,143,259</u>

6. Comments:

System secure from 9/5/10 to 9/7/10 due to "IO" communications error.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2010

Self-Monitoring Report

LLNL Portable Treatment Unit 11 (PTU11)

AREA TFD-SE

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): 723

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 07-13-2010
 Influent pH: 7.0
 Effluent pH: 7.0
 Effluent Temperature (°C): 20.8

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-314	445,587	10.6
W-1308	132,502	3.0
W-1904	0	0.0
W-1403	288	0.0
W-2005	6,797	0.1
SIP-ETC-201	0	0.0
Total:	<u>585,174</u>	<u>13.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>585,174</u>

6. Comments:

Shutdown PTU-11 7/01/10 @ 10:02 to update W-2005 well totals. Facility was restarted @ 10:38 hrs. 7/14/10 @ 10:00 Secured facility for interlock check. Facility was restarted @ 15:05 hrs.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 07-30-2010

Self-Monitoring Report
LLNL Portable Treatment Unit 11 (PTU11)
AREA TFD-SE

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>														
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	18	19	20	21	22	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 588

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-04-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>20.6</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-314	346,968	10.3
W-1308	110,889	3.1
W-1904	0	0.0
W-1403	41,460	0.0
W-2005	5,570	0.1
SIP-ETC-201	0	0.0
Total:	<u>504,887</u>	<u>13.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>504,887</u>

6. Comments:

Found facility shutdown 8/17 as a result of W-1308 flow meter failure. E-techs replaced several fuses and facility was restarted 8/23/10

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 09-01-2010

Self-Monitoring Report
LLNL Portable Treatment Unit 11 (PTU11)
AREA TFD-SE

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

August 31
September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 753

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-31-2010
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 20.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-314	459,002	10.2
W-1308	146,163	3.2
W-1904	0	0.0
W-1403	68,862	1.6
W-2005	6,135	0.1
SIP-ETC-201	0	0.0
Total:	<u>680,162</u>	<u>15.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>680,162</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-05-2010

Self-Monitoring Report
LLNL Portable Treatment Unit 12 (PTU12)
AREA TFD-SS

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): 727

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 07-14-2010
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 22.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1523	315,423	7.2
W-1603	530,368	12.2
W-1602	220,891	5.1
W-1601	43,196	1.0
Total:	<u>1,109,878</u>	<u>25.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,109,878</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-30-2010

Operator Signature: [Signature] Date: 09-02-2010

Self-Monitoring Report
LLNL Portable Treatment Unit 12 (PTU12)
AREA TFD-SS

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 688

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-13-2010
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 22.3

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1523	292,783	7.1
W-1603	436,127	14.6
W-1602	208,349	5.1
W-1601	41,996	1.0
Total:	<u>979,255</u>	<u>27.8</u>

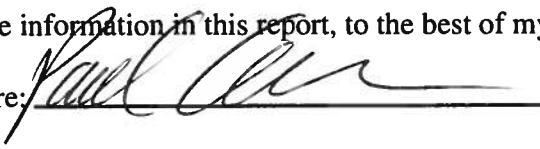
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>979,255</u>

6. Comments:

9/21/10 system secured for effluent piping repairs, system restarted on 9/22/10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2010

Self-Monitoring Report
LLNL Portable Treatment Unit 6 (PTU6)
AREA TFD-W

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): 732

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 07-15-2010

Influent pH: 7.5

Effluent pH: 7.5

Effluent Temperature (°C): 22.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1215	409,261	9.6
W-1216	421,083	9.9
W-1902	735,825	17.0
Total:	<u>1,566,169</u>	<u>36.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,566,169</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-30-2010

Self-Monitoring Report
LLNL Portable Treatment Unit 6 (PTU6)
AREA TFD-W

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>															
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>

Total monthly time facility operated (hours): 775

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-19-2010</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>22.1</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1215	415,234	9.7
W-1216	451,004	9.7
W-1902	765,317	15.9
Total:	<u>1,631,555</u>	<u>35.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,631,555</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-02-2010

Self-Monitoring Report
LLNL Portable Treatment Unit 6 (PTU6)
AREA TFD-W

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 658

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-15-2010
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 21.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1215	379,223	9.5
W-1216	350,874	8.9
W-1902	696,404	17.6
Total:	<u>1,426,501</u>	<u>36.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,426,501</u>

6. Comments:

System secure from 9/25/10 to 9/27/10 due to W-1216 flow meter failure alarm.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2010

Self-Monitoring Report

LLNL Vapor Extraction System 11 (VES11)

AREA VTFD-ETCS

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treatment facility operated

July 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1904	0	0.0	0	0	725
W-ETC-2004A	232,093	5.4	-6.51	60	725
W-ETC-2004B	219,491	5.4	-.95	60	725
W-ETC-2003	648,121	15.0	-1.23	60	725
SIP-ETC-201	0	0.0	0	0	725
Total:	<u>1,099,705</u>	<u>25.8</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 07-30-2010

Self-Monitoring Report

LLNL Vapor Extraction System 11 (VES11)

AREA VTFD-ETCS

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treatment facility operated


July	<u>31</u>																			
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>					
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>					

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1904	0	0.0	0	0	754
W-ETC-2004A	224,503	5.3	-7.05	90	754
W-ETC-2004B	227,646	4.8	-.82	90	754
W-ETC-2003	632,646	15.0	-1.27	90	754
SIP-ETC-201	0	0.0	0	0	754
 Total:	 <u>1,084,795</u>	 <u>25.1</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-01-2010**

Self-Monitoring Report

LLNL Vapor Extraction System 11 (VES11)

AREA VTFD-ETCS

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treatment facility operated

August	<u>31</u>																			
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>					
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>					

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1904	0	0.0	0	0	0
W-ETC-2004A	241,011	5.3	-6.64	62	752
W-ETC-2004B	235,830	4.8	-.79	62	752
W-ETC-2003	671,007	15.0	-1.19	62	752
SIP-ETC-201	0	0.0	0	0	0
Total:	<u>1,147,848</u>	<u>25.1</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **10-04-2010**

Self-Monitoring Report

LLNL Vapor Extraction System 07 (VES07)

AREA VTFD-HPD

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treatment facility operated

July 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1552	0	0.0	0	0	0
W-1650	0	0.0	0	0	0
W-1651	0	0.0	0	0	0
W-1653	0	0.0	0	0	0
W-1654	0	0.0	0	0	0
W-1652	0	0.0	0	0	0
W-1656	0	0.0	0	0	0
W-1657	0	0.0	0	0	0
W-1655	0	0.0	0	0	0
W-HPA-002A	783,920	18.0	-23.5	74	724
W-HPA-002B	0	0.0	0	0	0
<hr/>					
Total:	<u>783,920</u>	<u>18.0</u>			

4. Comments:

NA

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Field Date: 08-02-2010

Self-Monitoring Report

LLNL Vapor Extraction System 07 (VES07)

AREA VTFD-HPD

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treatment facility operated

July	<u>31</u>																														
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1552	0	0.0	0	0	0
W-1650	0	0.0	0	0	0
W-1651	0	0.0	0	0	0
W-1653	0	0.0	0	0	0
W-1654	0	0.0	0	0	0
W-1652	0	0.0	0	0	0
W-1656	0	0.0	0	0	0
W-1657	0	0.0	0	0	0
W-1655	0	0.0	0	0	0
W-HPA-002A	833,422	17.7	-22.5	92	775
W-HPA-002B	0	0.0	0	0	0
<hr/>					
Total:	<u>833,422</u>	<u>17.7</u>			

4. Comments:

The end month cumulative volume is based on a calculation. During a system upgrade (8-26-10) performed by EE support, the barometric gauge was disconnected by mistake which resulted in a volume decrease of approximately 5.55 scfm which continued for the rest of the month. Because of the error in the end month cumulative volume that was recorded, the total has been increased by 35,464.5 scf.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy O. Smith Date: 11-08-2010

Self-Monitoring Report

LLNL Vapor Extraction System 07 (VES07)

AREA VTFD-HPD

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treatment facility operated

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1552	0	0.0	0	0	0
W-1650	0	0.0	0	0	0
W-1651	0	0.0	0	0	0
W-1653	0	0.0	0	0	0
W-1656	0	0.0	0	0	0
W-1655	0	0.0	0	0	0
W-1657	0	0.0	0	0	0
W-1654	0	0.0	0	0	0
W-1652	0	0.0	0	0	0
W-HPA-002A	694,504	17.9	-23.5	66	716
W-HPA-002B	0	0.0	0	0	0
Total:	<u>694,504</u>	<u>17.9</u>			

4. Comments:

The facility was down for approximately 5 hours on 9/9/10 due to ISB01 electrical upgrade work.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Fink Date: 10-07-2010

Self-Monitoring Report

LLNL Vapor Extraction System 13 (VES13)

AREA VTFD-HS

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treatment facility operated

July	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-653	0	0.0	0	0	0
W-2101	0	0.0	0	0	0
W-2102	0	0.0	0	0	0
W-2011	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Comments:

System did not run.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-24-2010

Self-Monitoring Report

LLNL Vapor Extraction System 13 (VES13)

AREA VTFD-HS

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treatment facility operated

July	31														
August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-653	0	0.0	0	0	0
W-2101	0	0.0	0	0	0
W-2102	0	0.0	0	0	0
W-2011	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Comments:

System did not run.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Shirley Kawaguchi Date: 08-30-2010

Self-Monitoring Report

LLNL Vapor Extraction System 13 (VES13)

AREA VTFD-HS

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treatment facility operated

August	31																				
September	01	02	03	04	05	06	07	08	09	10	11	12	<u>13</u>	<u>14</u>	<u>15</u>						
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>						

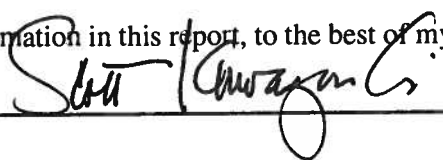
3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-653	0	0.0	0	0	0
W-2101	411	0.0	-26.27	68	413
W-2102	0	0.0	0	0	0
W-2011	0	0.0	0	0	0
Total:					
	<u>411</u>	<u>0.0</u>			

4. Comments:

Start facility on 9-13-10. Extracting from W-2101 only.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-02-2010

Self-Monitoring Report
LLNL Portable Treatment Unit 3 (PTU3)
AREA TFE-E

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 506

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 07-19-2010
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 22.6

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-566	240,450	8.0
W-1109	51,577	1.9
W-1903	0	0.0
W-1909	0	0.0
W-2305	257	2.5
Total:	<u>292,284</u>	<u>12.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>292,284</u>

6. Comments:

System secure from 7/21/10 through 7/30/10 for electrical upgrades to ELM well control system.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-30-2010

Self-Monitoring Report
LLNL Portable Treatment Unit 3 (PTU3)
AREA TFE-E

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	31																		
August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15				
	16	17	18	19	20	21	22	<u>23</u>	24	25	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>			

Total monthly time facility operated (hours): 128

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-23-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>23.2</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-566	65,303	8.8
W-1109	17,106	2.8
W-1903	0	0.0
W-1909	0	0.0
W-2305	2	0.0
Total:	<u>82,411</u>	<u>11.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>82,411</u>

6. Comments:

System down time for the month of August 2010 attributed to electrical upgrades and inspections.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-02-2010

Self-Monitoring Report
LLNL Portable Treatment Unit 3 (PTU3)
AREA TFE-E

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 339

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-22-2010
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 21.6

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-566	172,260	8.6
W-1109	49,723	2.3
W-1903	4,127	1.1
W-1909	0	0.0
W-2305	11,299	1.7
Total:	<u>237,409</u>	<u>13.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>237,409</u>

6. Comments:

System secure from 9/7/10 to 9/22/10 for electronic upgrades and repairs.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2010

Self-Monitoring Report
LLNL GAC Treatment Unit 07 (GTU07)
AREA TFE-HS

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	01	02	03	04	05	06	07	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 529

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-13-2010</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>23.4</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2105	502	2.7
W-2012	85,936	1.3
Total:	<u>86,438</u>	<u>4.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>86,438</u>

6. Comments:

System secure from 7/1/10 to 7/8/10 for T&V electrical upgrades.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-30-2010

Self-Monitoring Report
LLNL GAC Treatment Unit 07 (GTU07)
AREA TFE-HS

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>																
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>		
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>	

Total monthly time facility operated (hours): 768

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-17-2010</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>23.1</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2105	448	0.0
W-2012	108,493	2.1
Total:	<u>108,941</u>	<u>2.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>108,941</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-02-2010

Self-Monitoring Report
LLNL GAC Treatment Unit 07 (GTU07)
AREA TFE-HS

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 701

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-08-2010
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 22.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2105	208	0.7
W-2012	92,206	2.1
Total:	<u>92,414</u>	<u>2.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>92,414</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2010

Self-Monitoring Report
LLNL Portable Treatment Unit 9 (PTU9)
AREA TFE-NW

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 715

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 07-01-2010
Influent pH: 7.5
Effluent pH: 7.0
Effluent Temperature (°C): 22.7

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1211	735,459	17.3
W-1409	117,661	2.6
Total:	<u>853,120</u>	<u>19.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>853,120</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-30-2010

Self-Monitoring Report
LLNL Portable Treatment Unit 9 (PTU9)
AREA TFE-NW

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>																		
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>			

Total monthly time facility operated (hours): 776

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-18-2010</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>22.4</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1211	782,833	16.9
W-1409	132,633	2.6
Total:	<u>915,466</u>	<u>19.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>915,466</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-02-2010

Self-Monitoring Report
LLNL Portable Treatment Unit 9 (PTU9)
AREA TFE-NW

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 679

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-13-2010
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 22.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1211	708,865	17.8
W-1409	129,410	3.2
Total:	<u>838,275</u>	<u>21.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>838,275</u>

6. Comments:

System secure from 9/5/10 to 9/7/10 due to low flow alarm.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2010

Self-Monitoring Report
LLNL Mini Treatment Unit 04 (MTU04)
AREA TFE-SE

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 719

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-13-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22.6</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-359	349,019	7.9
Total:	<u>349,019</u>	<u>7.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>349,019</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 07-30-2010

Self-Monitoring Report
LLNL Mini Treatment Unit 04 (MTU04)
AREA TFE-SE

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>														
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 741

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-04-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>20.8</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-359	369,034	8.2
Total:	<u>369,034</u>	<u>8.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>369,034</u>

6. Comments:

Secured facility 8/19 @ 10:00 for strategy update. Facility was restarted 8/19 @ 10:55.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 09-01-2010

Self-Monitoring Report
LLNL Mini Treatment Unit 04 (MTU04)
AREA TFE-SE

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

August 31
September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 741

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-02-2010
Influent pH: 6.5
Effluent pH: 7.0
Effluent Temperature (°C): 22.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-359	372,614	8.3
Total:	<u>372,614</u>	<u>8.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>372,614</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-05-2010

Self-Monitoring Report
LLNL Mini Treatment Unit 03 (MTU03)
AREA TFE-SW

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	15
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 671

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-13-2010</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>20.6</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1518	72,359	1.8
W-1522	40	1.7
W-1520	29	1.2
Total:	<u>72,428</u>	<u>4.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>72,428</u>

6. Comments:

The facility was shut down for one day in order to perform maintenance work. The end month cumulative volume for W-1522 is based on a calculation. The volume shown on the computer screen was incorrect. The volume indicated that W-1522 was operating when it was actually shut down.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy J. Fick Date: 08-04-2010

Operator Signature: Billy O. Knecht Date: **09-07-2010**

Self-Monitoring Report
LLNL Mini Treatment Unit 03 (MTU03)
AREA TFE-SW

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 718

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-09-2010
Influent pH: 7.5
Effluent pH: 7.6
Effluent Temperature (°C): 19.8

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1518	77,750	1.8
W-1522	0	0.0
W-1520	0	0.0
Total:	<u>77,750</u>	<u>1.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>77,750</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Kuhl Date: 10-06-2010

Self-Monitoring Report
LLNL Mini Treatment Unit 05 (MTU05)
AREA TFE-W

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 716

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-13-2010</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>24.9</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-305	373,308	8.6
W-292	250,837	5.8
Total:	<u>624,145</u>	<u>14.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>624,145</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy O. Fritzel Date: 08-02-2010

Self-Monitoring Report
LLNL Mini Treatment Unit 05 (MTU05)
AREA TFE-W

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>																		
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>			

Total monthly time facility operated (hours): 765

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-05-2010</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>19.8</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-305	399,575	8.7
W-292	264,170	5.7
Total:	<u>663,745</u>	<u>14.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>663,745</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy J. Kridel Date: 09-07-2010

Self-Monitoring Report
LLNL Mini Treatment Unit 05 (MTU05)
AREA TFE-W

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 719

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-09-2010
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 21.6

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-305	375,275	8.7
W-292	248,402	5.7
Total:	<u>623,677</u>	<u>14.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>623,677</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Fisher Date: 10-06-2010

Self-Monitoring Report

LLNL Vapor Extraction System 16 (VES16)

AREA VTFE-ELM

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treatment facility operated

July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1909	0	0.0	0	0	0
W-1903	0	0.0	0	0	0
W-2305	0	0.0	0	0	0
W-543-1908	0	0.0	0	0	0
W-543-003	354,317	0.0	0	0	293
W-543-001	0	0.0	0	0	0
<hr/>					
Total:	<u>354,317</u>	<u>0.0</u>			

4. Comments:

Facility secured 7/12/10 to modify piping and instrumentation in preparation for upcoming TFE-ELM E.S.A.R. project.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 07-30-2010

Self-Monitoring Report

LLNL Vapor Extraction System 16 (VES16)

AREA VTFE-ELM

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treatment facility operated

July	31																				
August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15						
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30						

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1909	0	0.0	0	0	0
W-1903	0	0.0	0	0	0
W-2305	0	0.0	0	0	0
W-543-1908	0	0.0	0	0	0
W-543-003	0	0.0	0	0	0
W-543-001	0	0.0	0	0	0
Total:					
	<u>0</u>	<u>0.0</u>			

4. Comments:

Facility secured 7/12/10 to modify piping and instrumentation in preparation for upcoming TFE-ELM Enhanced Source Area Remediation (ESAR) project.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-15-2010

Self-Monitoring Report

LLNL Vapor Extraction System 16 (VES16)

AREA VTFE-ELM

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treatment facility operated

August	31															
September	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	

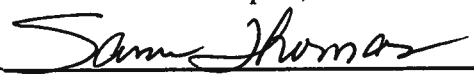
3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1909	0	0.0	0	0	0
W-1903	0	0.0	0	0	0
W-2305	0	0.0	0	0	0
W-543-1908	0	0.0	0	0	0
W-543-001	0	0.0	0	0	0
W-543-003	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Comments:

Facility secured 7/12/10 to modify piping and instrumentation in preparation for upcoming TFE-ELM Enhanced Source Area Remediation (ESAR) project.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2010

Self-Monitoring Report

LLNL Vapor Extraction System 12 (VES12)

AREA VTFE-HS

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treatment facility operated

July	01	02	03	04	05	06	07	08	09	10	11	12	13	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	24	25	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

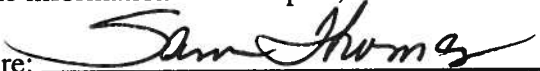
3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-ETS-2010B	351	0.0	0	0	0
W-ETS-2010A	1,251	0.0	0	2	2
W-ETS-2009	485	0.0	0	0	0
W-ETS-2008A	2,269	0.0	0	0	12
W-ETS-2008B	955	0.0	0	0	2
W-2105	566,382	58.6	-9	68	259
Total:	<u>571,693</u>	<u>58.6</u>			

4. Comments:

Facility was offline 7/1/10 to 7/14/10 to perform voltage and current measurements and check operation of unit interlocks. Facility was started 7/15/10 operating under REVAL test and verification mode. Several baseline tests were conducted and soil vapor extraction wells were operated intermittently at various flow rates. Vapor flow and vapor totalizer measurements in TFRT for W-2105 were found to be incorrect and lower than actual numbers. The monthly total for W-2105 is based on manual measurements at the wellhead. Attempts to validate the performance of electronic measuring instruments used at this facility are in progress. Facility was secured 7/24/10 to repair water leak on vacuum unit. Facility was restarted 7/26/10.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-10-2010

Self-Monitoring Report

LLNL Vapor Extraction System 12 (VES12)

AREA VTFE-HS

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treatment facility operated

July	<u>31</u>														
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	07	08	09	<u>10</u>	11	<u>12</u>	<u>13</u>	14	15
	16	17	18	19	20	21	22	23	24	25	<u>26</u>	27	28	29	30

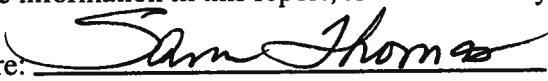
3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-ETS-2010B	3,030	10.6	-.81	80	5
W-ETS-2010A	3,052	10.6	-.43	80	5
W-ETS-2009	0	0.0	0	0	0
W-ETS-2008A	2,929	10.6	-1.5	80	5
W-ETS-2008B	2,655	9.3	-6.4	80	5
W-2105	541,937	19.7	-2.28	80	175
Total:					
	<u>553,603</u>	<u>60.8</u>			

4. Comments:

Facility secured 8/6/10 to replace low level switch in blower reservoir. Facility and extraction well totals zeroed 8/26/10, facility started extracting from W-ETS-2008A, W-ETS-2008B, W-ETS-2010A, W-ETS-2010B, and W-2105. Facility was discovered shutdown due to low discharge separator level 8/26/10 @ 16:30 hrs. Vapor flow and vapor totalizer measurements in TFRT for W-2105 were found to be incorrect and lower than actual numbers. The monthly total for W-2105 is based on manual measurements at the wellhead. Note: 8/10, 8/12 and 8/13 checked as operational days resulting from the use VES 12 to conduct Multistage pneumatic tests at SIP-ETS-601.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-20-2010

Operator Signature: *Jim Thomas* Date: 10-06-2010

Self-Monitoring Report
LLNL GAC Treatment Unit 01 (GTU01)
AREA TFG-1

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 715

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-15-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>21.4</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1111	378,826	8.8
Total:	<u>378,826</u>	<u>8.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>378,826</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-30-2010

**Land Observation Report date:
TFG-ASW - Arroyo Seco**

1. Reporting Period: Business Month July Year 2010

2. Date compliance sampling performed 07-15-2010

3. Weather Conditions:

Average air tempertaure (°C):	<u>21.3</u>
6-day total precipitation (in):	<u>0</u>
Average wind speed/direction (mph):	<u>5/ WSW</u>

4. Receiving Data:

Sample <u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>N/A</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-30-2010

**Self-Monitoring Report
LLNL GAC Treatment Unit 01 (GTU01)
AREA TFG-1**

1. Reporting Period: Business Month August Year **2010**

2. Dates (in **bold** and underline) treated ground water was discharged

July	31															
August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Total monthly time facility operated (hours): 689

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-19-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>21.5</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1111	364,175	8.8
Total:	364,175	8.8

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>364,175</u>

6. Comments:

System secured 8/28/10 pending carbon change.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: [Signature] Date: **09-02-2010**

**Land Observation Report date:
TFG-ASW - Arroyo Seco**

1. Reporting Period: Business Month August Year 2010

2. Date compliance sampling performed 08-19-2010

3. Weather Conditions:

Average air tempertaure (°C):	<u>17.7</u>
6-day total precipitation (in):	<u>0</u>
Average wind speed/direction (mph):	<u>6/ WSW</u>

4. Receiving Data:

Sample Location	pH	Temperature (C)
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>N/A</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-02-2010

Self-Monitoring Report
LLNL GAC Treatment Unit 01 (GTU01)
AREA TFG-1

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 353

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-16-2010
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 20.8

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1111	185,827	8.7
Total:	<u>185,827</u>	<u>8.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>185,827</u>

6. Comments:

System secure from 8/28/10 to 9/15/10 for carbon change.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2010

**Land Observation Report date:
TFG-ASW - Arroyo Seco**

1. Reporting Period: Business Month September Year 2010

2. Date compliance sampling performed 09-16-2010

3. Weather Conditions:

Average air tempertaure (°C):	<u>17.7</u>
6-day total precipitation (in):	<u>0</u>
Average wind speed/direction (mph):	<u>66/ SSW</u>

4. Receiving Data:

<u>Sample</u> <u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>N/A</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2010

Self-Monitoring Report
LLNL Mini Treatment Unit 02 (MTU02)
AREA TFG-N

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 692

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 07-15-2010
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 22.7

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1807	215,160	5.2
W-1806	116,117	2.7
Total:	<u>331,277</u>	<u>7.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>331,277</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-30-2010

Self-Monitoring Report
LLNL Mini Treatment Unit 02 (MTU02)
AREA TFG-N

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>																		
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>			

Total monthly time facility operated (hours): 791

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-19-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22.4</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1807	233,010	4.9
W-1806	129,672	2.8
Total:	<u>362,682</u>	<u>7.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>362,682</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-02-2010

Self-Monitoring Report
LLNL Mini Treatment Unit 02 (MTU02)
AREA TFG-N

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 720

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-08-2010
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 22.3

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1807	221,020	5.0
W-1806	118,304	2.8
Total:	<u>339,324</u>	<u>7.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>339,324</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2010

Self-Monitoring Report
LLNL Portable Treatment Unit 5 (PTU5)
AREA TF406

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): **652**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **07-13-2010**
Influent pH: **7.0**
Effluent pH: **7.0**
Effluent Temperature (°C): **24.5**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1309	219	4.9
W-1310	580,895	14.8
GSW-445	0	0.0
Total:	<u>581,114</u>	<u>19.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>581,114</u>

6. Comments:

System secure from 7/23/10 to 7/26/10 due to "air stripper high water level" alarm.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **07-30-2010**

Operator Signature: [Signature] Date: 09-02-2010

Self-Monitoring Report
LLNL Portable Treatment Unit 5 (PTU5)
AREA TF406

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 727

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-13-2010
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 24.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1309	0	0.0
W-1310	643,740	15.0
GSW-445	0	0.0
Total:	<u>643,740</u>	<u>15.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>643,740</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2010

Self-Monitoring Report
LLNL GAC Treatment Unit 03 (GTU03)
AREA TF406-NW

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 696

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-13-2010</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>23.2</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1801	161,743	3.9
Total:	<u>161,743</u>	<u>3.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>161,743</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-30-2010

Self-Monitoring Report
LLNL GAC Treatment Unit 03 (GTU03)
AREA TF406-NW

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>																														
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>																
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>															

Total monthly time facility operated (hours): 772

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-18-2010</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>22.9</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1801	167,149	3.5
Total:	<u>167,149</u>	<u>3.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>167,149</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-02-2010

Self-Monitoring Report
LLNL GAC Treatment Unit 03 (GTU03)
AREA TF406-NW

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 711

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-13-2010
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 22.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1801	139,664	3.2
Total:	<u>139,664</u>	<u>3.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>139,664</u>

6. Comments:

On 9/8/10, 397 gallons of water from TF518PZ processed through facility.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 11-08-2010

Self-Monitoring Report
LLNL Solar Treatment Unit 09 (STU09)
AREA TF518-N

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1410	0	0.0
Total:	<u>0</u>	<u>0.0</u>

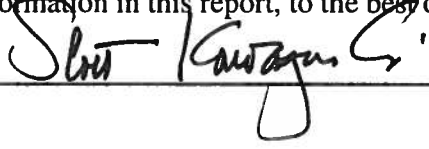
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **08-02-2010**

Self-Monitoring Report
LLNL Solar Treatment Unit 09 (STU09)
AREA TF518-N

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	31														
August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1410	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **08-30-2010**

Self-Monitoring Report
LLNL Solar Treatment Unit 09 (STU09)
AREA TF518-N

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

August	31														
September	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1410	0	0.0
Total:	<u>0</u>	<u>0.0</u>

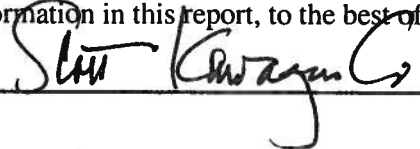
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-29-2010

Self-Monitoring Report
LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)
AREA TF518-PZ

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 483

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1615	113	0.0
W-518-1913	0	0.0
W-518-1915	32	0.0
W-518-1914	0	0.0
SVB-518-201	0	0.0
SVB-518-204	0	0.0
Total:	<u>145</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>145.1</u>

6. Comments:

Facility was secured 7/20/10 to facilitate Cone Penetrometer Testing in area.
Compliance sampling at this facility is not required, water is transferred and
treated at TF406-NW.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 07-30-2010

Self-Monitoring Report
LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)
AREA TF518-PZ

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	31																		
August	01	02	03	04	05	06	07	08	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 498

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1615	44	0.0
W-518-1913	0	0.0
W-518-1915	50	0.0
W-518-1914	0	0.0
SVB-518-201	0	0.0
SVB-518-204	0	0.0
Total:	<u>94</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>94</u>

6. Comments:

Facility was secured 7/20/10 due to Cone Penetrometer Testing in the TF518-PZ source area. Facility was restarted 8/9/10. Compliance sampling at this facility is not required, water is transferred and treated at TF406-NW.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 08-30-2010

Self-Monitoring Report
LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)
AREA TF518-PZ

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

August 31
September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 678

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1615	280	0.0
W-518-1915	40	0.0
W-518-1913	0	0.0
W-518-1914	0	0.0
SVB-518-201	0	0.0
SVB-518-204	0	0.0
Total:	<u>320</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>320</u>

6. Comments:

Facility secured 9/24/10 in advance of scheduled power outage. Facility was restarted 9/27/10. Transferred/treated 397 gallons of groundwater from TF518-PZ at TF-406 N/W on 9/8/10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Horner Date: 10-05-2010

Self-Monitoring Report
LLNL Catalytic Reductive Dehalogenation 1 (CRD1)
AREA TF5475-1

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1302-2	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-1 injection</u>	<u>W-1302-1</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **07-30-2010**

Self-Monitoring Report
LLNL Catalytic Reductive Dehalogenation 1 (CRD1)
AREA TF5475-1

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1302-2	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-1 injection</u>	<u>W-1302-1</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2010

Self-Monitoring Report
LLNL GAC Treatment Unit 09 (GTU09)
AREA TF5475-2

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 667

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 07-13-2010

Influent pH: 6.5

Effluent pH: 7.0

Effluent Temperature (°C): 19.5

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1108	171,625	4.4
W-1415	0	0.0
Total:	<u>171,625</u>	<u>4.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>171,625</u>

6. Comments:

Facility had down time on 7/24 and 7/25 due to carbon change out, facility only ran a few hours each day. facility also had some down time on 7/19 and 7/20 due to well flow meter alarms.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-04-2010

Operator Signature: Albert V. Vandy Date: **08-31-2010**

Self-Monitoring Report
LLNL GAC Treatment Unit 09 (GTU09)
AREA TF5475-2

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

August	31																
September	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15		
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		

Total monthly time facility operated (hours): **341**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-16-2010</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>20.5</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1108	88,837	4.4
W-1415	0	0.0
Total:	<u>88,837</u>	<u>4.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>88,837</u>

6. Comments:

Facility was down until communications were restored.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-30-2010**

Self-Monitoring Report
LLNL Catalytic Reductive Dehalogenation 2 (CRD2)
AREA TF5475-3

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

July	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1605	0	0.0
W-1604	0	0.0
W-1609	0	0.0
W-1608	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-2 injection</u>	<u>W-1610</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 07-30-2010

Operator Signature: [Signature] Date: **09-02-2010**

Self-Monitoring Report
LLNL Catalytic Reductive Dehalogenation 2 (CRD2)
AREA TF5475-3

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1605	0	0.0
W-1604	0	0.0
W-1609	0	0.0
W-1608	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-2 injection</u>	<u>W-1610</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **10-01-2010**

Self-Monitoring Report

LLNL Vapor Extraction System 08 (VES08)

AREA VTF406-HS

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treatment facility operated

July 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-217	895,248	20.5	-2.17	71.8	727
W-514-2007A	214,397	4.7	-6.24	71.8	727
W-514-2007B	448,745	10.0	-2.8	71.8	727
Total:	<u>1,558,390</u>	<u>35.2</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 07-30-2010

Self-Monitoring Report

LLNL Vapor Extraction System 08 (VES08)

AREA VTF406-HS

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treatment facility operated

July	<u>31</u>																								
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>										
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>										

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-217	921,799	20.6	-2.04	86	748
W-514-2007A	247,666	5.8	-6.08	86	748
W-514-2007B	460,891	9.9	-2.69	86	748
Total:	<u>1,630,356</u>	<u>36.3</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 09-01-2010

Self-Monitoring Report
LLNL Vapor Extraction System 08 (VES08)
AREA VTF406-HS

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treatment facility operated

August	<u>31</u>																
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>		
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>		

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-217	928,492	20.4	-2.09	71	754
W-514-2007A	277,081	5.9	-6.12	71	754
W-514-2007B	463,736	9.8	-2.79	71	754
Total:	<u>1,669,309</u>	<u>36.2</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 10-04-2010

Self-Monitoring Report

LLNL Vapor Extraction System 05 (VES05)

AREA VTF511

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treatment facility operated

July 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-274	0	0.0	0	0	722
W-2208A	0	0.0	0	0	722
W-2207A	0	0.0	0	0	722
W-2207B	502,601	10.5	-4.9	63	722
W-1517	0	0.0	0	0	722
W-2208B	272,489	6.4	-4.5	63	722
W-2204	0	0.0	0	0	722
W-2206	0	0.0	0	0	722
W-2205	0	0.0	0	0	722
Total:	<u>775,090</u>	<u>16.9</u>			

4. Comments:

Quarterly vapor samples collected 7/26/10.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 07-30-2010

Self-Monitoring Report

LLNL Vapor Extraction System 05 (VES05)

AREA VTF511

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treatment facility operated

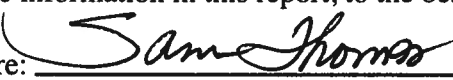
July	<u>31</u>																			
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>					
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>					

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-274	0	0.0	0	0	0
W-2208A	0	0.0	0	0	0
W-2207A	0	0.0	0	0	0
W-2207B	450,705	9.7	-4.9	101	746
W-1517	0	0.0	0	0	0
W-2208B	284,947	6.0	-4.3	101	746
W-2204	0	0.0	0	0	0
W-2206	0	0.0	0	0	0
W-2205	0	0.0	0	0	0
<hr style="border: 0.5px solid black;"/>					
Total:	<u>735,652</u>	<u>15.7</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-01-2010

Self-Monitoring Report

LLNL Vapor Extraction System 05 (VES05)

AREA VTF511

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treatment facility operated

August 31
 September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-274	0	0.0	0	0	0
W-2208A	0	0.0	0	0	0
W-2207A	0	0.0	0	0	0
W-2207B	432,684	9.5	-5.5	61	742
W-1517	0	0.0	0	0	0
W-2208B	278,882	6.3	-4.2	61	742
W-2204	0	0.0	0	0	0
W-2206	0	0.0	0	0	0
W-2205	0	0.0	0	0	0
Total:	<u>711,566</u>	<u>15.8</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 10-05-2010

Self-Monitoring Report

LLNL Vapor Extraction System 19 (VES19)

AREA VTF518-PZ

1. Reporting Period: Business Month July Week: 1 Year 2010

2. Dates (in **bold** and underline) treatment facility operated

June **26** **27** **28** **29** **30**
 July **01** **02**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	37,001	3.6	-16	72	171
W-518-1913	0	0.0	0	0	171
W-518-1915	5,139	0.5	-22.6	72	171
W-518-1914	0	0.0	0	0	171
SVB-518-201	0	0.0	0	0	171
SVB-518-204	0	0.0	0	0	171
Total:	<u>42,140</u>	<u>4.1</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-03-2010

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month July Week: 2 Year 2010

2. Dates (in **bold** and underline) treatment facility operated

July **03** **04** **05** **06** **07** **08** **09**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	26,957	2.7	-19.2	54	166
W-518-1913	0	0.0	0	0	0
W-518-1915	4,992	0.5	-24	54	166
W-518-1914	0	0.0	0	0	0
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>31,949</u>	<u>3.2</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 08-03-2010

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month July Week: 3 Year 2010

2. Dates (in **bold** and underline) treatment facility operated

July **10** **11** **12** **13** **14** **15** **16**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	34,211	3.4	-16.5	78	168
W-518-1913	0	0.0	0	0	0
W-518-1915	6,037	0.6	-22.5	78	168
W-518-1914	0	0.0	0	0	0
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>40,248</u>	<u>4.0</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 08-03-2010

Self-Monitoring Report

LLNL Vapor Extraction System 19 (VES19)

AREA VTF518-PZ

1. Reporting Period: Business Month July Week: 4 Year 2010

2. Dates (in **bold** and underline) treatment facility operated

July **17** **18** **19** **20** **21** 22 23 24 25 26 27 28 29 30

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	28,438	3.7	-16	54	128
W-518-1913	0	0.0	0	0	0
W-518-1915	4,612	0.6	-22.7	54	128
W-518-1914	0	0.0	0	0	0
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>33,050</u>	<u>4.3</u>			

4. Comments:

Secured VES 19 operations 7/21/10 in advance of Cone Penetrometer tests planned for the VTF-518 source area.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-03-2010

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month August Week: 1 Year 2010

2. Dates (in **bold** and underline) treatment facility operated

July 31
August 01 02 03 04 05 06 07 08 **09** **10** **11** **12** **13**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	16,474	3.2	-16.8	80	86
W-518-1913	0	0.0	0	0	86
W-518-1915	2,574	0.5	-22.7	80	86
W-518-1914	0	0.0	0	0	86
SVB-518-201	0	0.0	0	0	86
SVB-518-204	0	0.0	0	0	86
Total:	<u>19,048</u>	<u>3.7</u>			

4. Comments:

Facility secured 7/21/10 due to Cone Penetrometer Tests being conducted in TF-518PZ source area. Facility was restarted 8/9/10.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: **08-30-2010**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month August **Week: 2** Year **2010**

2. Dates (in **bold** and underline) treatment facility operated

August **14** **15** **16** **17** **18** **19** **20**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	34,125	3.5	-16	53	162
W-518-1913	0	0.0	0	0	0
W-518-1915	5,850	0.6	-22.7	53	162
W-518-1914	0	0.0	0	0	0
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>39,975</u>	<u>4.1</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 08-30-2010

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month August **Week: 3** Year 2010

2. Dates (in **bold** and underline) treatment facility operated

August **21** **22** **23** **24** **25** **26** **27**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	34,190	3.4	-16.2	53	168
W-518-1913	0	0.0	0	0	0
W-518-1915	6,034	0.6	-22.5	53	168
W-518-1914	0	0.0	0	0	0
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>40,224</u>	<u>4.0</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Sam Thomas* Date: 08-30-2010

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month September Week: 1 Year 2010

2. Dates (in **bold** and underline) treatment facility operated

August 28 29 30 31
September 01 02

3. Wellfield Data:

<u>Source</u>	<u>Weekly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1615	30,681	3.5	-15.3	74	146
W-518-1913	0	0.0	0	0	0
W-518-1915	5,260	0.6	-22.2	74	146
W-518-1914	0	0.0	0	0	0
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>35,941</u>	<u>4.1</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 09-15-2010

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month September Week: **2** Year **2010**

2. Dates (in **bold** and underline) treatment facility operated

September 03 04 05 06 07 08 09 10

3. Wellfield Data:

<u>Source</u>	<u>Weekly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1615	43,366	3.8	-15	51	190
W-518-1913	0	0.0	0	0	0
W-518-1915	7,988	0.7	-22.5	51	190
W-518-1914	0	0.0	0	0	0
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>51,354</u>	<u>4.5</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 09-15-2010

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month September Week: 3 Year 2010

2. Dates (in **bold** and underline) treatment facility operated

September **11** **12** **13** **14** **15** **16** **17**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	38,281	3.8	-15.5	58	168
W-518-1915	7,052	0.7	-22.5	58	168
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>45,333</u>	<u>4.5</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-28-2010

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month September Week: 4 Year 2010

2. Dates (in **bold** and underline) treatment facility operated

September 18 19 20 21 22 23 24

3. Wellfield Data:

<u>Source</u>	<u>Weekly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1615	36,828	3.6	-15	78	170
W-518-1915	9,207	0.9	-21.9	78	170
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>46,035</u>	<u>4.5</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 09-28-2010

Self-Monitoring Report

LLNL Vapor Extraction System 01 (VES01)

AREA VTF5475

1. Reporting Period: Business Month July Year 2010

2. Dates (in **bold** and underline) treatment facility operated

July	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-ETS-507	0	0.0	0	0	0
W-1608	0	0.0	0	0	0
W-1605	0	0.0	0	0	0
W-2211	0	0.0	0	0	0
W-2303	0	0.0	0	0	0
W-2302	0	0.0	0	0	0
W-2212	0	0.0	0	0	0
SVI-ETS-504	0	0.0	0	0	0
<hr/>					
Total:	<u>0</u>	<u>0.0</u>			

4. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>VTF5475 Vapor Injection Well</u>	<u>SVI-ETS-505</u>	<u>0</u>

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY 2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-02-2010

Self-Monitoring Report

LLNL Vapor Extraction System 01 (VES01)

AREA VTF5475

1. Reporting Period: Business Month August Year 2010

2. Dates (in **bold** and underline) treatment facility operated

July	31														
August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-ETS-507	0	0.0	0	0	0
W-1608	0	0.0	0	0	0
W-1605	0	0.0	0	0	0
W-2211	0	0.0	0	0	0
W-2303	0	0.0	0	0	0
W-2302	0	0.0	0	0	0
W-2212	0	0.0	0	0	0
SVI-ETS-504	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>VTF5475 Vapor Injection Well</u>	<u>SVI-ETS-505</u>	<u>0</u>

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY 2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Kewagun Ci Date: 08-30-2010

Self-Monitoring Report

LLNL Vapor Extraction System 01 (VES01)

AREA VTF5475

1. Reporting Period: Business Month September Year 2010

2. Dates (in **bold** and underline) treatment facility operated

August	31														
September	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-ETS-507	0	0.0	0	0	0
W-1608	0	0.0	0	0	0
W-1605	0	0.0	0	0	0
W-2211	0	0.0	0	0	0
W-2303	0	0.0	0	0	0
W-2302	0	0.0	0	0	0
W-2212	0	0.0	0	0	0
SVI-ETS-504	0	0.0	0	0	0
<hr/>					
Total:	<u>0</u>	<u>0.0</u>			

4. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>VTF5475 Vapor Injection Well</u>	<u>SVI-ETS-505</u>	<u>0</u>

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY 2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Kawaguchi Date: 09-29-2010

Attachment C

Lake Haussmann

Attachment C

Lake Haussmann Third Quarter 2010 Monitoring Program Summary

This attachment summarizes the third quarter 2010 LLNL Environmental Protection Department discharge data for Lake Haussmann. Lake Haussmann is an artificial water body that has a 37 acre-ft capacity. It is located in the central portion of the Livermore Site (Fig. C-1) and receives storm water runoff and treated ground water discharges.

Samples are collected from water discharged from Lake Haussmann and analyzed as outlined in Jackson (2002). The discharge samples are used to determine compliance with discharge limits in the *Record of Decision* (DOE, 1992), and the subsequent *Explanation of Significant Differences for Metals Discharge Limits* (Berg et al., 1997).

Dry season (June, July, August, September) discharges are sampled at each manual release or monthly during periods of continual release. Wet season (October through May) discharge samples are collected at the first release of the wet season and one other discharge in conjunction with a storm water monitoring event. Analytic results of discharge samples collected at location CDBX are compared with the LLNL Arroyo Las Positas outfall sample results collected at location WPDC (Fig. C-1). The results for samples collected at locations CDBX and WPDC are presented in Table C-1. All PCBs were below detection limits. No metals exceed discharge limits. The pH values at CDBX exceeded the desired range of 6.5 to 8.5. The pH has averaged 8.6 since 1998 at the CDBX sampling location and is typically elevated during summer due to increased photosynthesis. Aquatic bioassay tests showed no toxicity.

Discharge from Lake Haussmann remained continuous during the third quarter. The Lake Haussmann upper weir gate was maintained at the lowered position during the entire third quarter so that releases occurred continuously to minimize changes in surface water level and allow for a more natural ecosystem.

References

- U.S. Department of Energy, *Record of Decision for the Lawrence Livermore National Laboratory, Livermore Site*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-AR-109105, (1992).
- Berg, L.L., E.N. Folsom, M.D. Dresen, R.W. Bainer, and A.L. Lamarre, Eds., *Explanation of Significant Differences for Metals Discharge Limits at the Lawrence Livermore National Laboratory, Livermore Site*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-AR-125927 (1997).
- Jackson, C.S., *Drainage Retention Basin Monitoring Plan Change*, Letter to Ms. Naomi Feger, San Francisco Bay RWQCB, Lawrence Livermore National Laboratory, Livermore, CA, WGMG02:175:CSJ:RW:kh, (December 6, 2002).

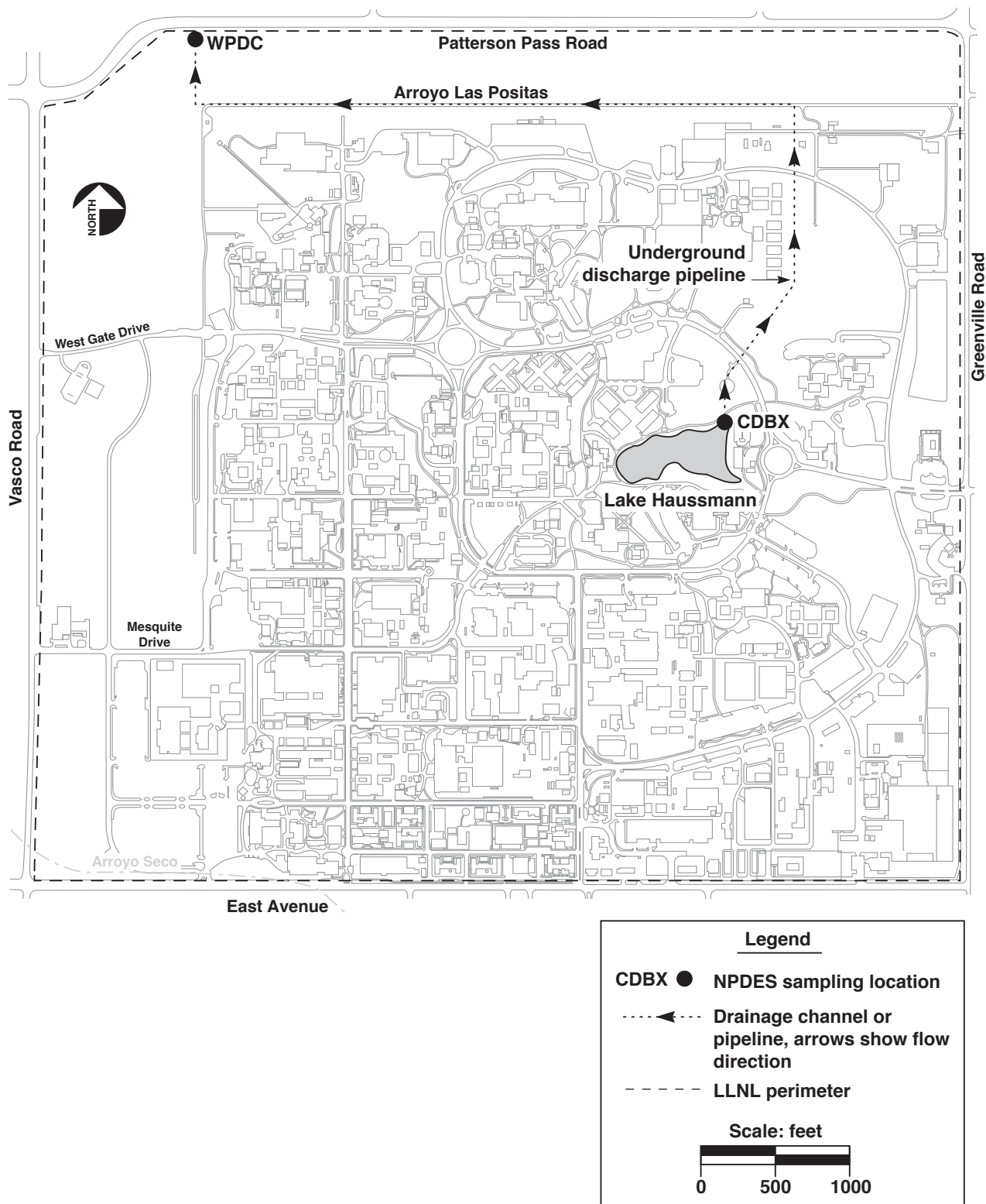
Table C-1. LLNL Lake Haussmann release monitoring data for points CDBX and WPDC, July through September 2010.

			CDBX 7/20	CDBX 7/28	CDBX 8/30	CDBX 9/28	WPDC 7/20	WPDC 8/30	WPDC 9/28	Discharge Limits 1-Apr through 30-Nov
Physical										
pH	Units	EPA-150.1	9.68	b	9.39	9.08	8.31	8.44	8.21	not <6.5 nor >8.5
Total suspended solids (TSS)	mg/L	EPA-160.2	1.2	b	1.4	1.7	28	11	210	na
Polychlorinated biphenyls			a	b	a	a	b	b	b	na
PCB 1016	ug/L	E8082A	< 0.5	b	< 0.5	< 0.5	b	b	b	na
PCB 1221	ug/L	E8082A	< 0.5	b	< 0.5	< 0.5	b	b	b	na
PCB 1232	ug/L	E8082A	< 0.5	b	< 0.5	< 0.5	b	b	b	na
PCB 1242	ug/L	E8082A	< 0.5	b	< 0.5	< 0.5	b	b	b	na
PCB 1248	ug/L	E8082A	< 0.5	b	< 0.5	< 0.5	b	b	b	na
PCB 1254	ug/L	E8082A	< 0.5	b	< 0.5	< 0.5	b	b	b	na
PCB 1260	ug/L	E8082A	< 0.5	b	< 0.5	< 0.5	b	b	b	na
Metals - Total										
Aluminum	mg/L	EPA-200.7	< 0.05	b	< 0.05	< 0.05	0.68	0.6	7.5	na
Antimony	mg/L	EPA-200.8	< 0.005	b	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.006
Arsenic	mg/L	EPA-200.8	< 0.002	b	< 0.002	< 0.002	< 0.002	< 0.002	0.003	0.05
Barium	mg/L	EPA-200.7	0.069	b	0.1	0.11	0.12	0.12	0.35	na
Beryllium	mg/L	EPA-210.2	< 0.0002	b	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.00021	0.004
Boron	mg/L	EPA-200.7	1.1	b	1.7	1.6	1.4	1.3	1.6	na
Cadmium	mg/L	EPA-200.8	< 0.0005	b	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.005
Chromium	mg/L	EPA-200.8	0.0017	b	0.0025	0.0031	0.011	0.0098	0.064	0.05
Cobalt	mg/L	EPA-200.7	< 0.05	b	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	na
Copper	mg/L	EPA-200.8	< 0.001	b	< 0.001	< 0.001	0.0022	0.0014	0.02	1.3
Hexavalent Chromium	mg/L	EPA-7196	0.0018	b	0.0029	0.003	0.0068	0.0078	0.0075	na
Iron	mg/L	EPA-200.7	< 0.1	b	< 0.1	< 0.1	0.89	0.74	9.8	na
Lead	mg/L	EPA-200.8	< 0.005	b	< 0.005	< 0.005	< 0.005	< 0.005	0.0082	0.015
Manganese	mg/L	EPA-200.8	< 0.03	b	< 0.03	< 0.03	< 0.03	< 0.03	0.25	0.5
Mercury	mg/L	EPA-245.1	< 0.0002	b	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.002
Molybdenum	mg/L	EPA-200.8	< 0.025	b	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	0.05
Nickel	mg/L	EPA-200.8	< 0.002	b	< 0.002	< 0.002	0.0031	0.0023	0.02	0.1
Selenium	mg/L	EPA-200.8	< 0.002	b	< 0.002	< 0.002	< 0.002	< 0.002	0.0022	0.05
Silver	mg/L	EPA-200.8	< 0.001	b	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.1
Thallium	mg/L	EPA-200.8	< 0.001	b	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.002
Vanadium	mg/L	EPA-200.7	< 0.02	b	< 0.02	< 0.02	< 0.02	< 0.02	0.026	na
Zinc	mg/L	EPA-200.7	< 0.02	b	< 0.02	< 0.02	0.028	0.029	0.26	na
Toxicity										
Aq. Bioassay, Survival	Percent	Title 22	c	100.	100.	100.	100.	100.	100.	na

a) All analysis results for these analytes are below reporting limits.

b) Sampling for these analytes not required at this location.

c) Hold time exceeded. Sample not run. Sampled again on 7/28/10.



ERD-S3R-08-0041

Figure C-1. Location of Lake Haussmann showing discharge sampling locations.

Attachment D

Figures

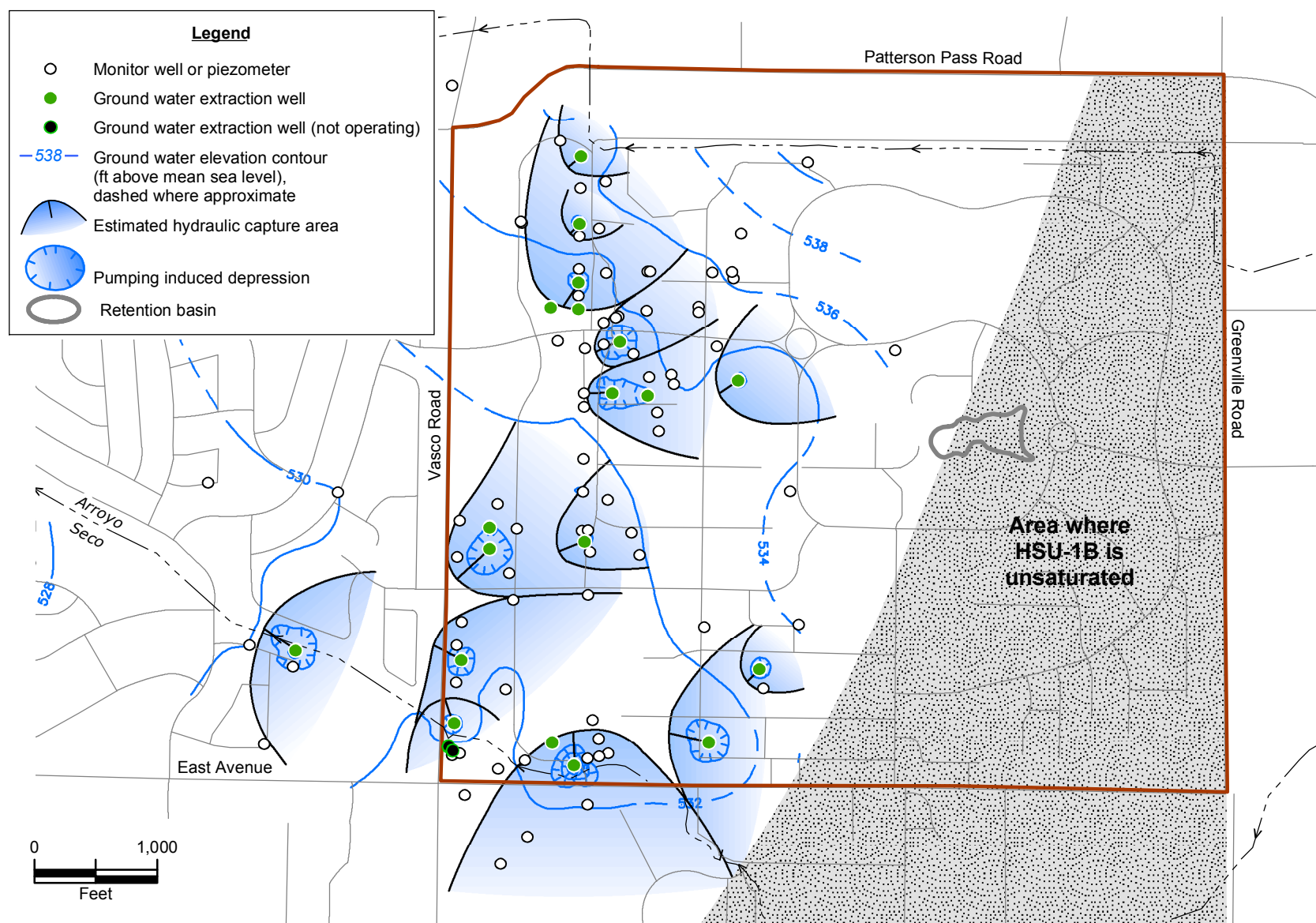


Figure 2. Ground water elevation contour map based on 104 wells completed within HSU-1B showing estimated hydraulic capture areas, LLNL and vicinity, July 2010.

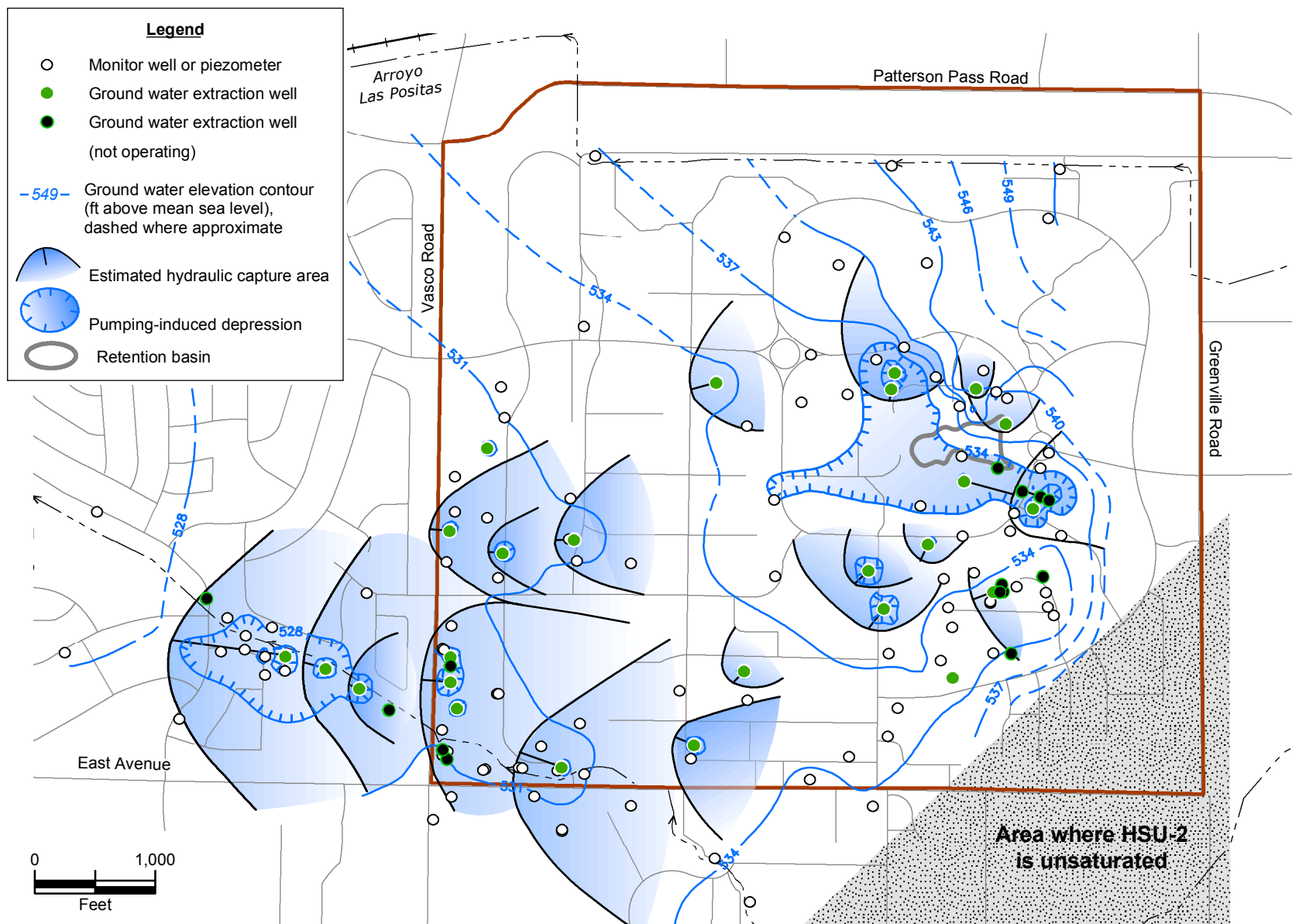


Figure 3. Ground water elevation contour map based on 145 wells completed within HSU-2 showing estimated hydraulic capture areas, LLNL and vicinity, July 2010.

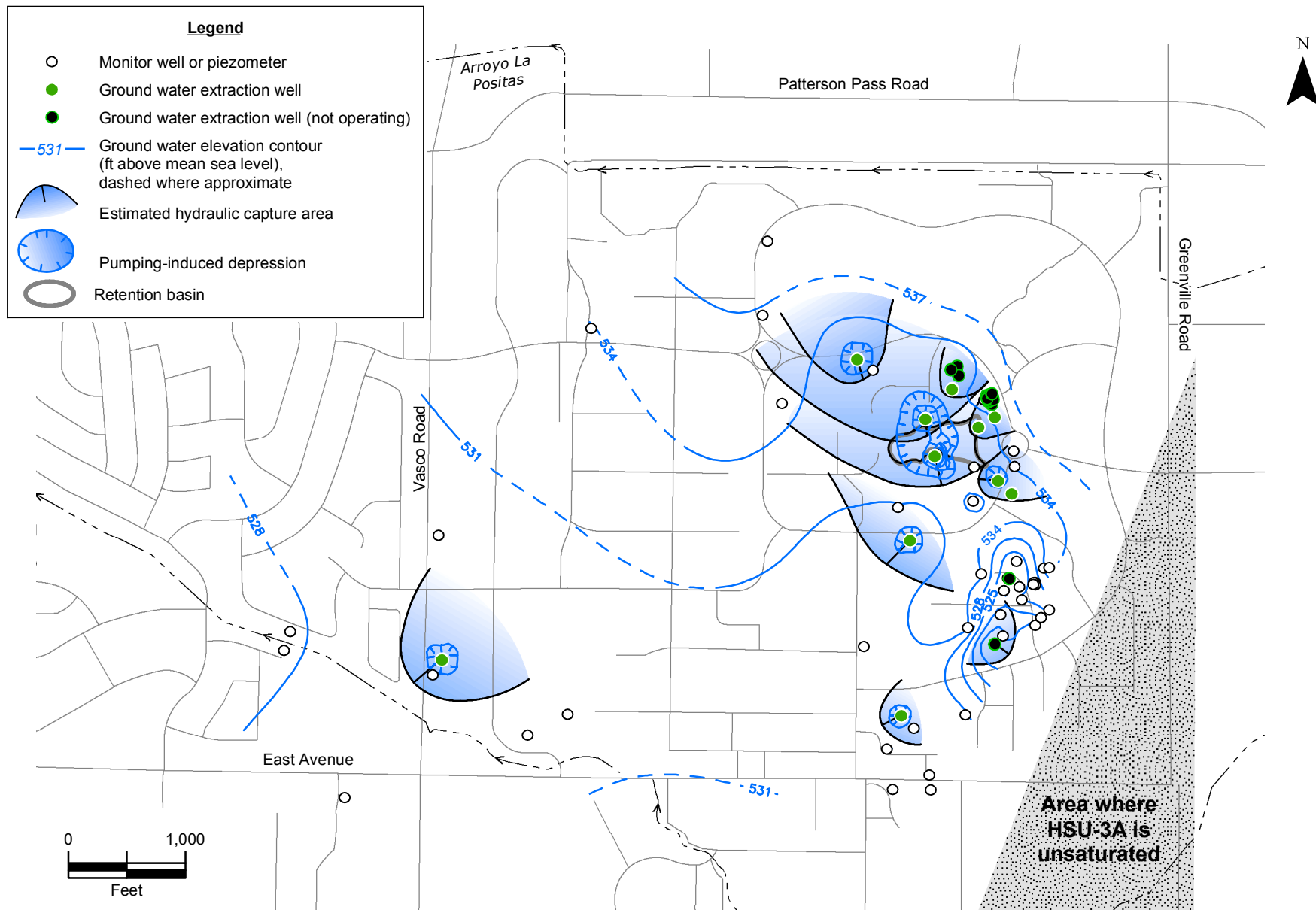


Figure 4. Ground water elevation contour map based on 72 wells completed within HSU-3A showing estimated hydraulic capture areas, LLNL and vicinity, July 2010.

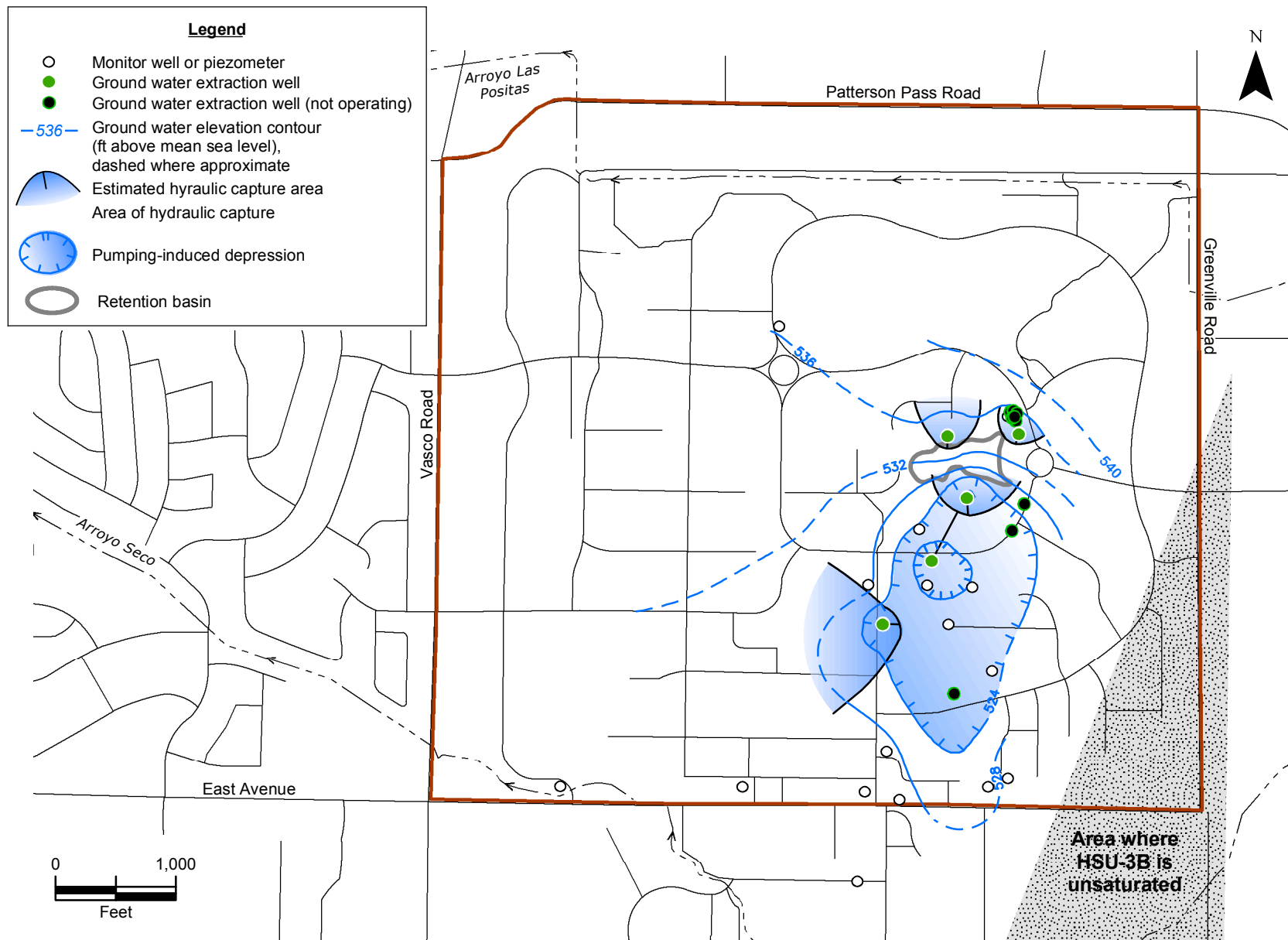


Figure 5. Ground water elevation contour map based on 31 wells completed within HSU-3B showing estimated hydraulic capture areas, LLNL and vicinity, July 2010.

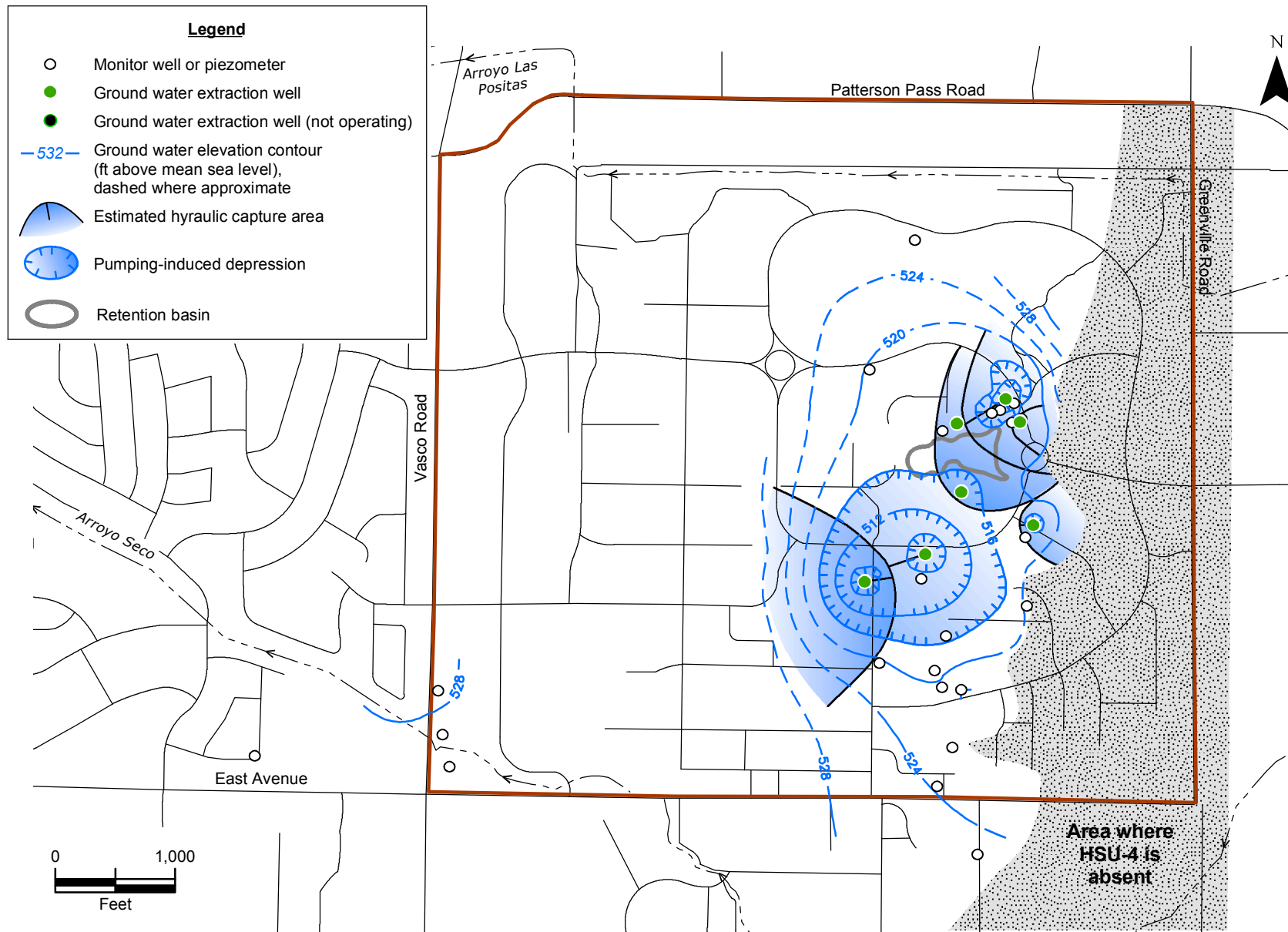


Figure 6. Ground water elevation contour map based on 30 wells completed within HSU-4 showing estimated hydraulic capture areas, LLNL and vicinity, July 2010.

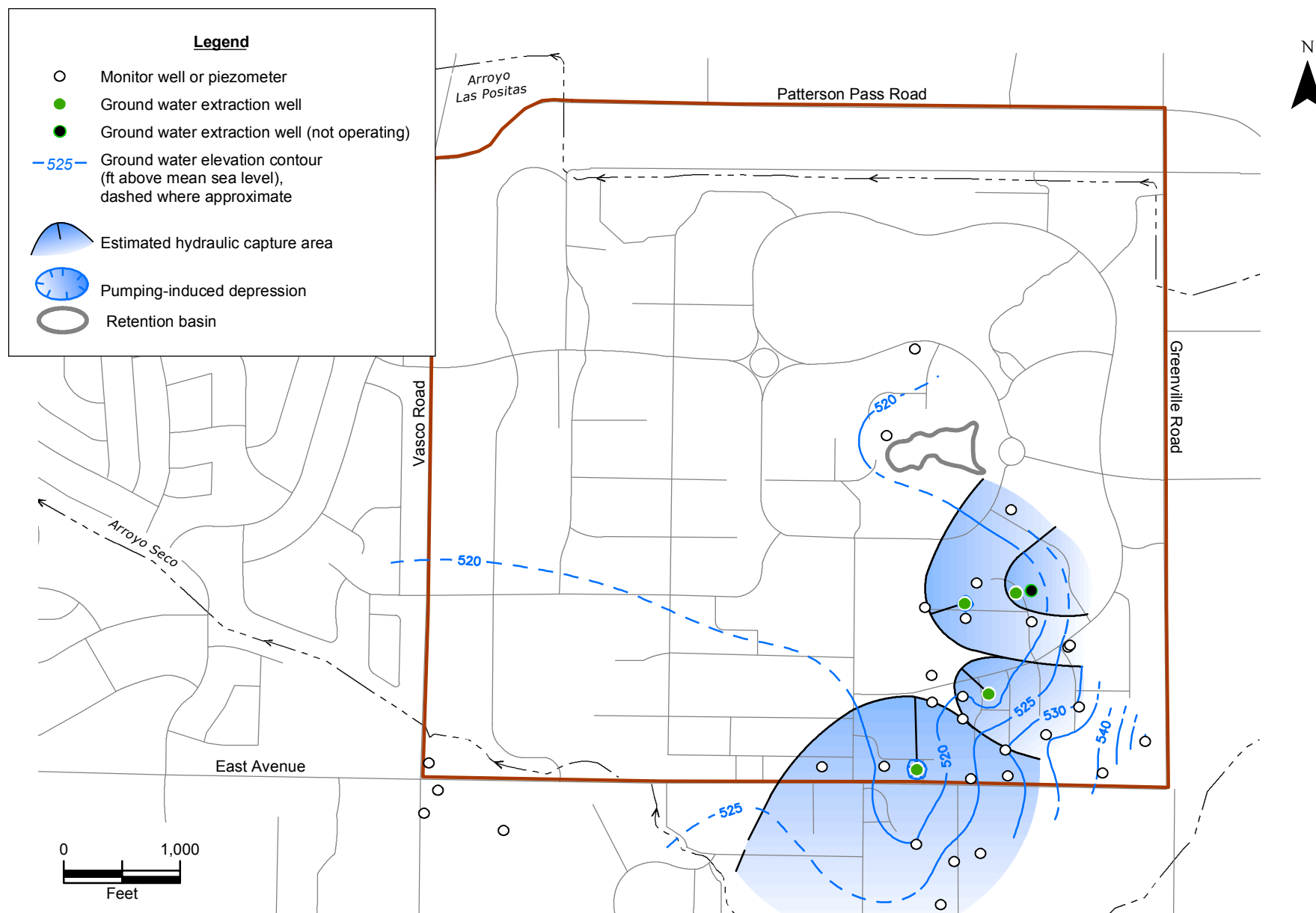


Figure 7. Ground water elevation contour map based on 38 wells completed within HSU-5 showing estimated hydraulic capture areas, LLNL and vicinity, July 2010.